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REPORTS
OF THE
MRTP COMMISSION
AND
ORDERS THEREUPON
OF THE
CENTRAL GOVERNMENT

UNDER SECTIONS 21, 22, 23 OF THE MRTP ACT
IN V VOLUMES

VOLUME III
SECTION 22

COMPILED BY
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MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS
DEPARTMENT OF COMPANY AFFAIRS
GOVERNMENT OF INDIA
NEW DELHI

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VOLUME III

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FOREWORD

The Monopolies and Restrictive Trade Practices Act, 1969 is intended to ensure that the operation of the economic system does not result in the concentration of economic power to the common detriment. The Act has its genesis in the Directive Principles of State Policy embodied in the Constitution. Article 39(b) and (c) of the Constitution lays down that the State shall direct its policy towards ensuring that the ownership and control of the material resources of the community are so distributed as best to subserve the common good and that the operation of the economic system does not result in concentration of wealth and means of production to the common detriment. The fundamental tenet of the State policy is, therefore, to ensure that while promoting economic and industrial growth, progressive reduction in the concentration of wealth and economic power is also brought about side by side. The provisions for regulating the concentration of economic power are contained in Chapter III of the Monopolies and Restrictive Trade Practices Act. The Act is not aimed at the prevention of growth of undertakings as such but is designed to regulate their expansion only into specified fields for ensuring that such expansions do not adversely affect the small and medium scale undertakings and they will not be prejudicial to the public interest.

The Central Government has the discretion to make references to the Monopolies and Restrictive Trade Practices Commission in respect of expansion of undertakings (Section 21), establishment of new undertakings (Section 22), Merger, amalgamation and take-over (Section 23) and division of undertakings (Section 27). References under the aforesaid provisions of the Act are made to the Commission if the Central Government is of the opinion that no order under these provisions can be made by it without further enquiry. It is not mandatory for the Central Government to refer all applications under Sections 21, 22 and 23 of the Act to the Commission for further enquiry. However, wherever it is felt that the facts and the relevant information necessary to decide on a proposal is not available or some important issues like dominance angle, demand projections, availability of raw-materials, economic viability, financial resources, technology angle, etc. merit further examination, the Central Government may refer the proposal to the Commission for an indepth enquiry. After enquiry and such hearing as it thinks fit, the Commission submits its report on the proposal to the Central Government. The role of the Commission in this regard is of advisory nature and it is for the Central Government to take a final decision on the proposal in the light of the recommendations of the Commission.

Since the inception of the Monopolies and Restrictive Trade Practices Act, the Commission has submitted a number of reports on the various proposals referred to it for enquiry by the Central Government from time to time. These reports contain very valuable and useful information and also provide a deep insight into the various fields of industry in respect of which the Commission got an opportunity to enquire into. Various Departments of the Government as well as the research scholars, and academicians would find the information contained in these reports to be of great use to them. Although the reports of the Commission together with the orders of the Central Government thereon have been laid before the Parliament from time to time, in pursuance of the provisions of section 62 of the Act, it had not been possible to have these reports published so far for the benefit of the general public. The present publication is the first endeavour in this direction, and it is hoped that this publication would meet the long felt need of the various quarters by making the reports of the Commission available to them in the form of a single publication.

I would like to express my sincere appreciation of the hard work done by Shri B.B.L. Mittal, Senior Librarian, Department of Company Affairs in editing and compiling this voluminous publication which runs into five volumes. But for his whole-hearted and untiring efforts, this publication may not have been possible. It is heartening that Shri Mittal has also undertaken the work of editing and compiling the orders of the Central Government in respect of the various proposals decided by the Central Government under Sections 21, 22 and 23 of the Monopolies and Restrictive Trade Practices Act, in respect of which reference to the Commission was not considered necessary. It is hoped that this work will also be published soon.

NEW DELHI,
8th July, 1981

K. S. BHATNAGAR,
Secretary to the Government of India,
Department of Company Affairs

REPORTS UNDER SECTION 22 OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969

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1.	Anil Starch Products Ltd.	18-9-73	25-3-74	Rejected on 9-1-76	1
2.	Ballarpur Paper & Straw Board Mills Ltd.	7-3-75	30-6-75	Approved on 28-2-76	65
3.	Birla Jute Mfg. Co. Ltd.	20-1-73	1-10-73	Approved on 3-5-74	107
4.	Chowgule & Co. Pvt. Ltd.	29-10-75	9-3-76	Approved on 19-11-76	167
5.	Chowgule & Co. Pvt. Ltd.	6-4-76	31-7-76	Approved on 27-5-77	215
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9.	Kamani Tube Pvt. Ltd.	21-7-72	17-11-72	Rejected on 28-2-74	557

REPORT UNDER SECTION 22 (3) (b) OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969, IN THE CASE OF ANIL STARCH PRODUCTS LIMITED, AHMEDABAD

2—10 Mof LJ&CA/ND/79

MONOPOLIES AND RESTRICTIVE TRADE PRACTICES COMMISSION

Report under Section 22(3) (*b*) *of the M.R.T.P. Act,* 1969—*M/s. Anil Starch Products Limited, Ahmedabad*

INTRODUCTION

Messrs. Anil Starch Products Limited, Ahmedabad (hereinafter referred to as Anil) submitted an application dated the 2nd October, 1972 to the Government of India, Department of Company Affairs seeking that Department's approval for the establishment of a new undertaking at Ahmedabad for the manufacture of Speciality Starch Products. The proposed new undertaking was to be in the form of a private limited company where 40% shares would be subscribed by the foreign collaborators M/s. National Starch and Chemical Corporation, New York, U.S.A., 40% by Anil and 20% by the friends and relatives of directors, etc.

2. This application of Anil was referred to the Commission by the Department of Company Affairs (*vide* the Department's letter No. 2/10/72-M(III), dated 18th September, 1973). The 90 days time prescribed under Section 30(2) for submission of the report to the Govt. expired on 17th December, 1973. However, as the collection of relevant data from Anil and other bodies took more time, and some objectors wanted a hearing on certain legal aspects (as mentioned below), the Commission by its order dated the 7th December, 1973, and 4th February, 1974, extended the date for the submission of the report to 31st March, 1974 (see Appendix 'A' & 'A-1').

3. Anil had put in notices in the 'Times of India' dated 29th September, 1972 and 'Indian Trade Journal' dated 25th October, 1972 notifying that it proposes to make an application under Section 22(2) of the MRTP Act, 1969 to the Department of Company Affairs, New Delhi for permission to establish a factory for the manufacture of proposed products. In response to these notifications, the Department of Company Affairs received certain communications regarding the Company's proposal. These were forwarded to the Commission by the Department of Company Affairs for its consideration at the time of making the reference.

4. After the reference was received in the Commission's office, a notification (No. 1(40)-Enq./73 dated 24th September, 1973) incorporating the salient features of the Company's proposal, was issued by the Commission and was published in all the important newspapers on 30th September, 1973. The Commission also specifically addressed all those persons who had sent letters to the Department of Company Affairs in response to the two notices issued by Anil. In response to the notification and these letters a number of persons addressed the Commission regarding Anil's proposal. Their names and addresses are given in Appendix 'B'.

5. In this case much interest was taken by certain competing companies among which the most prominent were M/s. Maize Products of Ahmedabad, a Division of Sayaji Mills Limited, a large independent company as per the Report

of the Industrial Licensing Policy Inquiry Committee, and Laxmi Starch of Bombay. In addition to supplying various information and comments to the Commission, these two companies also applied to the Commission praying that certain documents relating to the enquiry being made by the Commission should be made available to them. As these applicants raised certain important points relating to the working of the Commission and the operation of the MRTP Act, the Commission gave them a hearing and also gave an opportunity to Anil to participate in that hearing. This hearing lasted for about 20 hours. The Commission decided that only the application made by Anil with certain omissions may be made available to these companies and that they had no right to obtain any of the other materials which they had asked for. As the questions raised relate to important aspects of the working of the Commission and the operation of the Act, the applications made by these two companies and the Commission's Order are given herewith as Appendices 'C', 'D' & 'E'.

6. The public hearing regarding this case was held from 25th February to 1st March, 1974. The hearing was attended by representatives of some of the competing producers as well as the representatives of Anil and concerned Government Departments and institutions. As the representatives of Anil could not answer some questions raised by the Commission at the end of the public hearing, the Commission gave a hearing in camera to them. The points made by these representatives were taken note of by the Commission.

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CHAPTER I

THE APPLICANT COMPANY

Anil is a public limited company. In the Industrial Licensing Policy Inquiry Committee's Report, Anil has been listed as belonging to the Large Industrial House of Kasturbhai Lalbhai. The Company was established in the year 1939. Its annual turnover in the year 1972 was nearlly Rs. 10 crores, leading to a profit of approximately Rs. 90 lakhs before providing for depreciation, taxes, etc.

Shareholding Pattern

1.1 The authorised capital of Anil consists of 2,50,000 shares of Rs. 100 each, i.e. Rs. 2.50 crores. Its subscribed capital was Rs. 1.05 crores consisting of 100,000 shares of Rs. 100 each and 5,000 7% Cumulative Preference Shares of Rs. 100. each both fully paid. The pattern of growth of these shares has been found to be as under:—

	Equity shares	Rs.	Preference Shares	Rs.
(a) Shares issued for consideration other than cash	NIL		NIL	
(b) Shares issued for cash	40,240	40,24,000	5,000	500,000
(c) Bonus shares issued by Capitalization of General Reserves	59,760	59,76,000	NIL	
	100,000	100,00,000	5,000	500,000

The analysis of the shareholdings indicates that the Unit Trust of India holds 4,853 shares *i.e.*, 4.9% of the total, and L.I.C. 305 shares. The shares held by Shri Kasturbhai Lalbhai, his relatives and other Directors of Anil and their relatives totally are 11,872. 8,565 shares are held by banks on behalf of the above mentioned persons thus making a total 20,437 shares *i.e.*, 20.44% of the total share capital of Anil. If the shareholdings of the Managing Directors of eight companies, included by the ILPIC in the Kasturbhai Laibhai Group and their relatives amounting to 4,125 shares which constitute 4.1% shares of the total are also taken into account, the shares controlled, directly or indirectly, by the controlling Group amount to about 1/5th of the total share capital of Anil.

Capital Structure

Balance Sheet position of the Company on 31-12-1972

1.2 Briefly, the balance sheet position of Anil on 31-12-1972 was as below:—

		(Figures in crores)
Fixed assets (Less Depreciation)		2·48
Other assets :		
Technical know-how		0·02
Investments		0·01
Current assets		5·04
		7.55
Less :		
Secured creditors	3·20	
Unsecured loan, etc.	0·59	
Current Liabilities	0·89	
Provisions	0·41	
	5·09	5·09
		2.64

Represented by :	(Rs. in Crores)
Share Capital	1·05
General Reserves	1·03
Capital Reserve	0·05
Development Rebate Reserve	0·33
	2·46

Interconnected Undertakings

1.3 According to the report of the Industrial Licensing Policy Inquiry Committee referred to earlier, 36 companies including Anil belong to the large industrial house of Kasturbhai Lalbhai. Anil, in its application submitted to the Department of Company Affairs, admitted interconnection with three companies of this group, *viz*:

(i) M/s. Saraspur Mills Limited.
(ii) M/s. Raipur Manufacturing Co. Ltd.
(iii) M/s. Ashoka Mills Limited.

Later on, during the course of enquiry, Anil stated that it is only interconnected with M/s. Saraspur Mills Ltd. as this is the only company under the same management and that there is no interconnection between Anil Starch on the one hand and Ashoka Mills and Raipur Mills on the other. Earlier, interconnection with these two companies was admitted on the basis of their being common Managing Directors. The interconnection has now been denied on the basis of legal advice received. Anil has also stated that the new Joint Venture when formed will not be interconnected with it.

1.4 In response to one of our queries, Anil stated that the following companies of 'Kasturbhai Lalbhai Group' as per the ILPIC Report will be consumers of the products proposed to be produced by the Joint Venture:

(1) The Ahmedabad New Cotton Mills Company Ltd., Ahmedabad.
(2) Apurva Containers Pvt. Ltd., Ahmedabad.
(3) Aruna Mills Ltd., Ahmedabad.
(4) Arvind Mills Ltd., Ahmedabad.
(5) Ashoka Mills Ltd., Ahmedabad.
(6) Nutan Mills Ltd., Ahmedabad.
(7) Raipur Mfg. Co. Ltd., Ahmedabad.
(8) The Saraspur Mills Ltd., Ahmedabad.

The requirements of these companies have been estimated at 150 tonnes per annum or a value of Rs. 2,25,000 (approx. 1.25% of the total production). None of the other companies of the Group are likely to be users of the product of the proposed Joint Venture.

Existing Lines of Production

1.5 Anil is presently engaged in the manufacture of 15 products including starch. The details of these have been given in Appendix 'F'.

The existing production lines of Anil can be broadly grouped as under:

(i) Starches, Dextrose, Liquid Glucose, Calcium Gluconate, Enzymes and Activated Carbon.
(ii) Sulphuric Acid, Superphosphate, Alum and Alumina Ferric.
(iii) Forgings.

1.6 The production lines in the first group are complementary to each other to the extent that starch produced by the Starch Plant is used as raw material for the manufacture of Dextrose and Liquid Glucose. Dextrose is used as raw material for the manufacture of Calcium Gluconate, Enzymes and Activiated Carbon are used as chemicals for the manufacture of Dextrose and Liquid Glucose.

1.7 The production lines in the second group are said to be complementary to the extent that Sulphuric Acid produced in Sulphuric Acid Plant is used as raw material for the manufacture of Superphosphate, Alum and Alumina Ferric.

1.8 The present product mix, it has been claimed, helps in lowering the cost of production because drying, packing and packaging, and transport costs are eliminated as most of the products are used in liquid form and are supplied accordingly. It also helps in:

(a) Better utilization of bye-products;

(b) Better use of marketing and other facilities; and

(c) Improved Research and Development.

This does not of course apply to forgings.

Expansion programme for Future

1.9 Anil has its own programme for establishing new units and for effecting substantial expansion in their existing lines. The details are:—

Scheme	Capacity in tonnes	Date of implementation
A. New Article :		
1. (a) Sorbitol Liquid	2,000	By 1974 (Licensed in Sept. 1973)
(b) Sorbitol Powder	100	
2. (a) Glucose Isomerase	3,000	Letter of Intent issued in 1974.
(b) Isomerised Syrup	6,000	
3. Anhydrous Dextrose	1,000	Implemented.
B. Expansion :		
Calcium Gluconate	Capacity increased from 40 tonnes to 150 tonnes.	Implemented.

The investment for these projects is to come from internal cash accruals and by loans from financial institutions, if necessary. Projects mentioned above against 1 and 2 have also been approved by the Central Government under the Monopolies and Restrictive Trade Practices Act.

In most of the products which Anil is at present manufacturing, the utilization of capacity had been very low during the last five years, *i.e.*, from 1968 to 1972.

1.10 The capacity regarding, the production of starch was utilised as follows:—*

1968	50%
1969	53%
1970	44%
1971	57%
1972	63%

The specific reasons given for this shortfall are as follows:—

1. Sufficient raw material was not available.
2. Shortage of fuel and power.
3. Transport difficulties.
4. Installed capacities in the country are higher than the traditional demand.

Production of starch by Anil and other major producers during the last three years has been as under:—

(*See Table I*)

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*Based on data furnished by Anil.

TABLE I

Production & capacity (Licensed and Installed) of Starch—by Units Percentage share of each unit in the total production and its capacity utilisation rate

(Figures in Tonnes)

	Year	1970			1971			1972			
Name of the Unit	Production	Percent share	Utilisation rate Percent (¹)	Production	Per-cent Share	Utilisation rate per-cent (¹)	Production	Per-cent Share	Utilisation rate per-cent (¹)	Licensed capacity	Installed capacity
M/s. Maize Products(²)	21,866	27·8	40·5	24,137	27·6	44·7	32,735	29·2	60·6	54,000	54,000
M/s. Raja Ram Bros.	3,765	4·8	50·2	4,944	5·7	66·0	6,572	5·9	87·6	7,500	7,500
M/s. Bharat Starch	6,596	8·4	52·4	6,661	7·6	52·9	8,730	7·8	69·3	12,600	12,600
M/s. Laxmi Starch (Hyderabad) (³)	5,515	7·9	91.9	5,470	6·3	91·2	8,576	7.6	142·9	6,000	6,000
M/s. Anil Starch	23,494	29·8	39.2	30,434	34·8	50.7	37,420	33.3	62·4	60,000	60,000
Arjeet Starch	7,238	9·2	120·6	6,165	7·0	102·8	6,429	5·7	107.2	6,000	6,000
M/s. Lakshmi Starch (Kerala) (³)	4,572	5·8	76·2	4,125	4·7	68·8	3,022	2·7	50·4	6,000	6,000
Kamala Sugar Coimbatore	1,684	2·1	28·1	326	0·4	5·4	1,802	1·6	30·0	6,000	6,000
Tapioca Products (Kerala) (²)	4,057	5·1	29·0	5,172	5·9	36·9	6,923	6·2	40·4	36,000	14,000
TOTAL	78,787	100.0	45·8	87,434	100·0	50.9	1,12,209	100.0	71.0	1,94,100	1,72,100

(1) Utilisation rate with respect of installed capacity.

(2) Both these units belong to Sayaji Mills Limited.

(3) Both these units belong to Laxmi Starch.

N. B. Units at S. No. 1 to 6 manufacture 'Maize Starch' and those at 7, 8 and 9 manufacture Tapioca Starch

Source : D.G.T.D: Production Registrar.

1.11 From this Table it will be seen that Anil and Maize Products are dominant undertakings in the production of starch in India. All the other production units are much smaller. Even the largest among them, Laxmi Starch has a capacity much smaller than the capacity eiher of Maize Products or Anil. It has been noticed that the utilisation of capacity both of Anil and Mtaize Products is low as compared to some of the smaller units.

1.12 In addition to Maize Starch which is being produced by large scale units, it is understood that Tapioca Starch is being produced besides the units at S.Nos 7 to 9 in the above table, by some 500 units in the small scale sector in the States of Tamil Nadu and Kerala. Data about their production is not available. A committee appointed by the Government of India had reported in 1969 that it was unable to make an accurate assessment of the production of starch in the small scale sector. "The Committee was however informed that in the small scale sector about 150,000 tonnes of tapioca starch was being produced both in Madras as well as in Kerala, of which approximately 1/3rd was being utilised for the production of sago globules and the balance used as starch. The Committee accepts this as reasonable estimate. (Chapters 3, 4 paras 16.17)."

1.13 The starch plant of Anil, was designed in 1938 with the assistance of a German expert. This was the second starch plant in India. Anil engaged an American technical Consultant in 1952 to design dextrose plant and a modernised glucose syrup plant. These plants were commissioned in 1956-57. Anil as thus able to produce maize starch, acid modified thin boiling starches, dextrines, and glucose syrup. In 1965, Anil entered into a collaboration with Nagase and Co. Ltd. of Japan to obtain a process for manufacture of enzymes and a process for manufacture of dextrose by enzymatic conversion process. With this know-how, Anil is manufacturing dextrose by enzymatic process. Anil is also manufacturing a variety of enzymes required for desizing textiles, dehairing leather, enzymes for leather industry and enzymes for derergent industry. Anil also has developed an enzyme for the pharmaceutical industry. It has also obtained permission for collaboration with JITA of Japan for manufacture of glucose isomerase and isomerized syrup.

Export performance of Anil

1.14 The Company has been exporting small quantities of Maize Gluten, Corn Steep, Starches, Liquid Glucose and Enzymes. During 1972 it exported 3,850 tonnes and 110 tonnes of Maize Gluten and Starches respectively. earning £97056 which is equivalent to Rs. 18.15 lacs. Its export of maize gluten has been more or less of the same order during the last five years while it exported only about 110 tonnes of starch during the four years prior to 1972. During 1972, the export of starch was about 110 tonnes. The total earnings by way of foreign exchange during the last five years have been as under:—

Year	*Earnings (Rs. in lacs)*
1968	14·65
1969	15·83
1970	15·81
1971	15·51
1972	18·15

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Foreign Collaborations in the past

1.15 The Company had in the past only one foreign collaboration which was for the manufacture of Enymes and for conversion of starch to dextrose by enzymatic process with Messrs. Nagase and Co. Ltd., of Japan. This collaboration agreement was for five years from 1964. At present the Company is having no foreign collaboration.

Research & Development Activities

1.16 The research work undertaken in Anil's research laboratory has been mainly in the fields of biological sciences. The following achievements in the field of Research and Development have been claimed by the Company:—

1. Development of new Enzymes for use in detergents;
2. Development of dehairing enzyme formulation for dewooling sheep skins to obtain superior products;
3. Processes to manufacture Calcium and Sodium Gluconate by fermentation, using dextrose and/or dextrose molasses as starting material (under development);
4. Development of High Maltose Powder for use in baby foods;

5. Manufacture of Activated Carbon from paddy husk;
6. Manufacture of Hypochloride Oxidised Starch by using techniques described in text books;
7. Products for sizing synthetic yarns (under development);
8. Development of a plant for the manufacture of anhydrous dextrose.

The following processes are under development:

Manufacture of edible maize oil from crude Maize Oil.

Manufacture of Activated Carbon suitable for Pharmaceutical Industry.

Enzyme formulation for various uses such as dentifrice, recovery of silver from waste photo-films, silk industry.

1.17 From the details of the expenditure on research and development as provided by Anil, it appears that the amount spent on this activity is less than 1/2% of the total turn-over. It has been 0.30%, 0.50%, 0.80%, 0.18% and 0.41% during the years 1968, 1969, 1970, 1971 and 1972 respectively.

1.18 The applicant company has also stated that it has undertaken a programme for building a new research laboratory with a capital expenditure of Rs. 16 lakhs. The recurring expenses on R & D during the next five years are proposed at Rs. 21 lakhs.

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CHAPTER II

THE PROPOSAL

The proposal is to set up a new company at Ahmedbad for the manufacture of 12,000 tonnes of speciality starches. Details of these speciality starches along with their application and uses in various industries are given in Appendix 'G'. The shares in the new company to be formed are proposed to be subscribed as follows:—

1.	National Starch & Chemical Corporation, New York, U.S.A. (Proposed foreign collaborators of the Company)	40%
2.	M/s. Anil Starch Products Ltd.	40%
3.	Financial Institutions*	20%

The proposed authorised capital of the joint venture will be Rs. 1 crore divided into 1,00,000 shares of Rs. 100 each. The subscribed and paid-up capital for the present will be Rs. 30 lakhs.

2.2 It is proposed to manufacture a total of 66 speciality starches. Out of these 13 are meant for application in paper manufacture, 9 in paper cartons, corrugated boards, etc., 11 in textile processing, 19 in food applications and 14 in such miscellaneous uses as core binders for foundry moulds, laundry starches for water treatment and sizing of glass fibre. According to Ahmedabad Textile Industry's Research Association:

> "From the description of the end uses, it may be concluded that the speciality starches are based on: (a) Fractionation of starch into its components, namely, amylose and amylopection, and further conversion of these into chemical derivatives. High amylose maize and waxy starches could also be the starting materials for these derivatives. (b) Cathonic starches producted by the reaction of starch with dialkylamine chlorides. These starches are particularly useful in paper manufacture. (c) Oxidized starches produced by the oxidation of starch with sodium hypochloride. These are used in paper coating as well as in sizing and finishing of textiles, and as laundry starches. Another type of oxidized starch, the so-called dialdehyde starch, is produced by the oxidation of starch by sodium metaperiodate. These starches are used as wet-end additives in the paper manufacture. (d) Starch acetate and hydroxyethyl starch, produced by acetylation and hydroxyethylation respectively, are mainly used in textile application. (e) Cross-linked starches, prepared by treatment of starch with such reagents as sodium metaphosphate, epichlorohydrin, phosphorous oxychloride, are used mainly in the food industry as thickeners. Highly cross-linked starches are used in battery cells and as dusting powders, and (f) Dextrins, produced by reaction of acids or enzymes on starches, are mainly used as adhesives and binders for paper boards, cartons and paper tapes, stamps etc."

> "In addition to the above starch types, there are some common treatments such as mild acid hydrolysis and pregeltinization to tailor the properties of modified starch to end uses. Sometimes it is necessary to subject the starch to more than one type of modifications. Thus, for application in frozen foods, the starch is hydroxyethylated as well as crosslinked."

Process of Manufacture

2.3 Starch as an industrial product is produced mainly from maize and tapioca. The content of starch in maize and tapioca is about 61 to 65% and 40 to 50% respectively. Apart from starch, maize, which is the main raw material from which starch is produced, contains, roughly, the following other ingredients:—

1.	Gluten	(5·5%)
2.	Fine Fibre	(5·5%)
3.	Coarse Fibre	(5%)
4.	Maize Oil	(2·5%)
5.	Steep Solids	(5%)

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*While the original proposal was that 20% of the shares would be subscribed by friends and relatives of the Directors etc., the applicant company informed the Commission (*vide* its letter dated November 8, 1973) that it was now proposed to make these shares available to public financial institutions.

2.4 The process of manufacture of starch from maize is briefly the following:—

Maize is steeped in water/sulphur water for about 20 to 24 hours. This process softens maize and this softened maize is made to pass through a sort of grinding mill where it is coarse ground. As it is being ground, water is added to it, which results in the formation of a thin slurry; maize germs (which are lighter) float and are separated from the slurry. This slurry is further refined and in that process, the fibres (both coarse and fine) are removed. Finally a mixture of starch and gluten is left. Again this slurry (consisting of starch and gluten) is passed through high speed centrifugal wheels which results in the separation of gluten from starch. This starch is in the form of liquid. From this, water is separated and starch is dried. The final product is in the form of a powder.

2.5 Speciality starch is essentially a modified tailor-made starch fit for application to a particular process or item. Anil has described the process of production of speciality starches as below:—

> "The process of manufacture of speciality starches, consists refining starch slurry in refining centrifuges and then treating the starch slurry under rigid controlled conditions of agitation, temperature and pH with various chemicals. Sometimes a series of appropriate treatment is used. After treatment is over, the treated starch slurry is washed, pH is adjusted and slurry filtered or centrifuged to about 30 to 40% moisture and dried in a dryer. The dired starch is ten pulverised, if necessary, blended, stored in bins and packed as final product."

Raw Materials

2.6 The raw material requirements for producing 100 tonnes of speciality starch have been stated to be as below:—

1.	Starch (Dry basis) (Available indigenously)	100 tonnes
2.	Beta-Diethylaminoethy ln Chloride (DEC) (Imported)	150 Kgs.
3.	Epichlorhydrine	8·3 Kgs.

Besides these, there are certain other chemicals (which will be available indigenously) which will be used for the manufacture of the proposed product. Their names and quantities, the applicant company has stated, cannot be disclosed at this stage because the collaborators are not willing to do so at this juncture.

2.7 Anil has stated that 20,000 tonnes of maize will be required to produce the raw starch to be used for producing speciality starches (12,000 tonnes). The maize, it was stated, will be indigenously available and no difficulty is envisaged in securing the required quantity of maize.

2.8 The company was asked to state whether 'tapioca' could replace maize in the manufacture of starch which is to be the raw material for the proposed speciality starch products. It was stated that tapioca starch is somewhat inferior to maize starch. Viscosity capacity of maize starch is much superior to that of tapioca. Tapioca gets thinned down quickly. Its consistency is not maintained over even a slightly longer period. It has further been stated that maize is the cheapest, dependable and continously available basic raw material for conversion into starch and, therefore, this has to be preferred to tapioca.

Location

2.9 The new unit is proposed to be located at Ahmedabad in the vicinity of the present starch unit of Anil. The proposed site, it is stated, will have the following advantages:—

(a) The raw material for the manufacture of speciality starches by the new undertaking will be the starch manufactured by Anil who have their factory at Ahmedabad. For manufacture of speciality starches, starch in slurry form is required. The new undertaking has, therefore, to be located in the vicinity of the starch manufacturing plant as the starch slurry (liquid starch) can be transported from the factory of Anil, to the new factory through pipe line. This will eliminate the cost of drying, the cost of packing and packaging, cost of handling, cost of transport etc. and the cost of re-dissolving for treatment. Transportation of starch slurry by tankers is not possible because of its property to sediment.

(b) The new undertaking will be assured of regular supply of uniform quality of raw material through a neighbouring factory.

Foreign Collaboration

2.10 The proposed plant for the manufacture of 12,000 tonnes of speciality starch is to be set up by Anil in collaboration with National Starch and Chemical Corporation Limited, U.S.A. The proposed terms of collaboration are:—

1. A new private Indian Corporation (Joint Venturey) is to be formed. Anil and the U.S. company are each to purchase 40% of the shares and the remaining 20% shares are to be sold to financial institutions.

2. There would be an even number of directors in the Joint Venture. NSC and Anil would each have the right to appoint half the directors except that any directors to be appointed by law or as a consequence of the Joint Venture's financial or other obligations would be counted as 'Anil Appointees'. One Managing Director would be appointed by NSC and the other by Anil.

3. As long as NSC owns 40% of the shares in the Joint Venture, it will provide on a continuing basis know-how and technical assistance for the manufacture, sale and use of speciality starch products.

4. NSC will send to India to assist the Joint Venture, in the construction and start up of the first plant, technically qualified personnel of such number and for such period of time as may be necessary in the sole opinion of NSC. For such services, the Joint Venture will pay NSC $125 per day per man plus travel and board and lodging expenses actually incurred. (Anil has sated that two experts will come from NSC, a technical man twice for 15 days each time and a marketing man for 30 days. The total payment pertaining to these visits would be approximately 7,500 US Dollars).

5. As consideration for NSC's technical assistance and know-how, the Joint Venture will pay to NSC a sum of $40,000 US for the design and start up of the speciality starch plant, and an engineering fee of $ 60,000 U.S. Both sums will be payable in advance, upon completion of the initial organisation of the Joint Venture.

6. The Joint Venture will appoint NSC as its exclusive agent for sale of speciality starches exported from India at a commission of 10%. Such agency arrangement will remain in effect for five years and, at NSC's request, for another five years thereafter. (Anil was questioned on this matter and has stated that the international sale of speciality products requires a good customer service, backed by proper experitise, etc. and National Starch are best equipped in this matter. Further, in Anil's opinion, 10% commission is reasonable and not high. It has also been stated that NSC will give up some of its markets in far eastern countries for the sale of the products of the Joint Ventrue).

7. The Joint Venture will be appointed as Anil's exclusive *del credre* agent for the sale of all starches and dexgrines, which are not speciality starch products and are produced by Anil on its own account, on a commission of 2½%.

In addition to this commission, Anil is to undertake such supplemental expenses and provide such additional assistance as Anil has previously incurred on behalf of or rendered to its sales agents. (On further questioning it was explained on behalf of Anil this payment was not meant to provide a source of profit to the Joint Venture, and that if any surplus remained from the commission after meeting the sales expensus, it would be used for R& D.

8. For a period of ten years, neither Anil nor NSC can sell its stock in the Joint Venture except to a purchaser of all or substantially all of its business and assets, or to a corporation into which it may merge. (The company has stated that this condition, as far as NSC is concerned, is necessary to ensure continuous availability of Know-how and technical assistance for a period of ten years.)

9. Anil is to lease land contiguous to its wet milling plant at Ahmedabad to the Joint Venture on a long term lease on a rental of Rs. 2·25 ($·30 U.S.) per sq. yard per year.

10. Anil will provide the Joint Venture with its requirements of raw starch, in milk or dry form, for conversion into speciality starches, at a price equal to Anil's cost thereof. The cost is to include (a) the cost of raw material less net receipts from the sale of by-products, (b) the cost of containers if any and (c) an appropriate allocation of those costs of direct labour, factory supervision, fuel, water, power, depreciation, property taxes and general

overheads which are related to the production of the starch to be sold to the joint venture. If Anil has to increase its production capacity to meet the requirements of the Joint Venture, "cost" is also to include an appropriate allocation of interest cost of the funds required by Anil for such capacity increase, in case the raw starch requirements of the Joint Venture exceed 13,000 tonnes per year. Anil is to commit itself to provide a proper proportion of its starch production to the Joint Venture even in a year when Anil is unable to produce sufficient raw starch for the full requirements of the Joint Venture. Anil is also not to undertake any investment etc. relating to the manufacture of raw starch which might increase the cost of raw starch to the Joint Venture without its consent.

11. There are also other terms suggested in the proposed collaboration agreement to guard Anil's interest if any of its sales are replaced by the sales of the Joint Ventures and also to prevent the know-how obtained by the Joint Venture from becoming available to other Indian parties.

12. The Joint Venture is also not to manufacture speciality starch products outside India or sell them in any place or country where National Starch, its Subsidiaries or affiliates are manufacturing or in future will be manufacturing speciality starch products or where National Starch has in the past granted exclusive licences. The Joint Ventures will be free to sell speciality starch products in all other places. (It was explained on further discussion that the intention was that the proposed Joint Venture will be in a position to supply the markets in most countries of West Asia, Africa and South East Asia except that a new associated company which is being established in Japan would have a non-exclusive licence to sell speciality starch products in many countries including India) Regarding the grant of any new licences to companies in these potential markets, Anil has explained that National Starch would discuss with the Joint Venture any such proposal, due regard being given to the potentiality of export out of the Indian Joint Venture.

Justification for going in for this Project

2·11 Anil has justified the setting up of the proposed plant on the following grounds :—

(a) The Anil Starch Products Limited has been the pioneer in the field of manufacture of starch and its allied products. The company has been the first to initiate a programme of developing the manufacture of related products of starch and enjoys the credit of being the first to start the manufacture of Dextrins and Glucose in 1943, and of Dextrose in 1956. At a time when there were small imports of Dextrose worth about Rs. 30 lakhs in India, the company, with its knowledge of the trends of industrial development in the country and in the world. Visualised a demand for this product in the country and put up a plant for its manufacture.

(b) The company has been abreast of the technical and technological improvements in the field of starch and allied products in the world and has been the first to change the process of Dextrose manufacture from Acid conversion to Enzymatic conversion in the year 1967.

(c) The company has been continuously conscious of the tremendous strides made in the developed countries of the world in the field of Speciality Starches. With the experience and expertise the company has in the starch field, if foresees a large demand for these products in the country. It, therefore, conducted a survey in India for ascertaining the market for these starches. The survey has revealed that there exists a large latent demand for sepciality starches in the country. The need for these starches is growing with the development of industries like paper, castings, corrugating, baby-foods, weaning foods, glass forming and sizing, oil drilling etc. The Company, therefore, has decided to enter the field of manufacture of speciality starches to satisfy a large demand in the country, to obviate future imports of the same, to help accelerate the growth of the above industries and to enter the export markets for these products. It was, however, realised that with the limited resources available with the Company and in the country, the development of a large variety of these starches coupled with the required application technology would take a very long time—perhaps more than two decades—and, as a result, the country will lag behind the world in this field. In the Chemical Industry, knowledge, doubles every ten years and one has to remain dynamic in its plans for development in order to avoid stagnation and retardation. The company, has therefore, decided to obtain the technology from National Starch who are the world leaders in this field.

(d) With the background of experience in the basic discipline of carbohydrate chemistry, and with the trained technical personnel already with it, the Company is better equipped to negotiate and obtain the best know-how and to translate the same in the implementation of the project. Further, it has spare capacity in its starch plant, which can be tapped to feed the required starch slurry to the Joint Venture, thus ensuring best use of men, materials and industrial capacity and achieving production, supply and distribution efficiently, economically and tailored to the needs of Indian Industries, the defence of India and the export market.

(e) Speciality starches if manufactured in India can improve the quality of paper, various kinds of foods, fibre glass forming and sizing, pharmaceuticals, castings etc. Some of the speciality starches would be useful in preparation of special foods which do not deteriorate at very low temperatures met with in high altitudes. The speciality starches can also improve the keeping quality of foods under tropical conditions. Some speciality starches are usefull in oil well drilling and offshore oil well drilling. All these products can be helpful for defence forces and the home markets. This project will thus be helpful in meeting the requirements of the defence of India and the home market.

(f) The improvement and efficiency achievable by the use of these speciality starches in paper, food, pharmaceuticals and castings will help these industries to increase their export and thus, besides direct export, there will be substantial indirect export arising from the Joint Venture.

(g) The demand survey conducted by Anil is claimed to have indicated that there is a substantial latent demand for speciality starches in the country even today but, due to their non-availability, many industries have not been able to improve quality and achieve higher efficiency. This project will, it is claimed, help in meeting the need and bridging part of the gap between supply and demand. Since the new project plans to produce only 12,000 tonnes of speciality starches against an estimated demand of about 40,000 tonnes by 1978-79, there will be enough room for other undertakings to enter this field. This will ensure the purpose of fostering competition and having the trade organised in such a way that its efficiency is progressively increased.

(h) It is also claimed that the project will for the first time, make available speciality starches for special applications in paper, corrugating, castings, gum tapes, adhesives, weaning foods, baby foods, glass forming and sizing industries, oil drilling and as flocculents for waste water treatment, and will thus create large direct and indirect employment, and will ensure the best use of men, materials and industrial capacities.

(i) The raw material required for the manufacture of speciality starches is slurry of maize starch, *i.e.* maize starch in suspension. Anil Starch Products Ltd. has an idle capacity in its maize starch plant. Location of this Joint Venture alongside the plant of Anil will thus enable the utilisation of the idle capacity of the starch plant of Anil, and starch in liquid form will be supplied through a pipe line. This will save the cost of drying, packing, transport, handling and re-dissolving. Thus, it is pointed out that the location of the Joint Venture alongside the plant of Anil will ensure the best use of materials and industrial capacity in India.

(j) It is further claimed that these speciality starches will effect technical and technological improvements in paper, food, pharmaceuticals, oil well drilling, glass forming and sizing, cardbox industry, gum tape, paper articles etc. by improving their quality, increasing their efficiency and reducing their waste. To cite an example, the use of cato starches in paper industry will improve the strength of paper, achieve whiteness and capacity, increase retention of pigment and fines, aid drainage and improve the printing characteristics of paper. The cato starches will improve the quality and yield of paper which otherwise is not possible with the use of maize starch or tapioca starch and will also help in achieving economy in the consumption of starch. The speciality starches will, therefore, effect technical and technological improvement in the trade.

(k) It is claimed that in Anil, its Directors and their relatives hold less than 20% of the shares and the remaining 80% shares are widely distributed between 8,500 shareholders. In the Joint Venture, Anil and National Starch each will have 40% shares and the balance 20% shares will be held by various Indian Financial Institutions. Thus both in Anil and in the Joint Venture, no individual group except the foreign collaborator, has or will have substantial shareholding. The association of the applicant company in the Joint Venture will not, therefore, lead to concentration of economic power to the common detriment.

(l) The capacity of 12,000 tonnes applied for by the company is said to be less than 30% of the estimated demand for speciality starches by 1978-79. This leaves plenty of room for others to enter into the field. Maize Products, a Division of Sayaji Mills Limited. another dominant Undertaking in the starch industry, is also said to have applied for a Letter of Intent to manufacture 15,000 tonnes of speciality starches in collaboration with KONINKLIJKE SCHOLTEN HONING N.V. (K.S.H.) Holland. If the proposed Joint Venture is permitted, it is claimed that it will provide competition to the proposed unit of Maize Products which would otherwise be a monopolist in the trade.

(m) The project involves an investment of approximately 68 lakhs of rupees in a sector of industry which is not existing in India today. It will generate large direct and indirect employment and help the economy of the country. It will also help fulfil the need of various industries. The Joint Venture contemplates the introduction of the cultivation of waxy and high amylose maize with the seeds and know-how to be provided by the American collaborator. These varieties of maize till date are not cultivated in India. It is claimed that the development of this item will directly help the backward areas of Sabar kantha, Banaskantha and Panchmahal of Gujarat State where traditionally maize is grown and help the Adivasis and other people of these backward areas by providing them with a gainful occupation to increase their income and standard of living. It will, therefore, help to regulate the control of the material resources of the community to subserve the common good and particularly will be helpful to the weakest section of the society.

Development of Ancillaries

2·12 The proposed project, it has been claimed, will lead to the development of ancillary industries in the following way :—

(i) The new project will require approximately 2,40,000 sacks and polyethylene liners for packing the finished products. These will be manufactured by small scale industries situated in nearly centres.

(ii) Some of the chemicals required such as Acetic Anhydride, Acetic Acid, Phosphates, Sodium Hypochlorite etc. are manufactured in the small and medium scale factories and the additional demand would help these industries.

(iii) Some of the gum-tape and carton manufactures are in the small-scale sector, and with the availability of speciality starches, they will be able to produce better quality gum-tapes and water resistant cartons, and thereby increase their markets. This will also help exports. The small scale sector will thus be benifitted.

(iv) The proposed manufacturing activity, it is reported, will not compete with the existing small scale/medium size units in the country as speciality starches would be used in new applications and thereby create a new market demand. It will not substitute the existing demand for ordinary starches.

Scheme of Finance

Capital Outlay

2·13 In the original application submitted by Anil for the establishment of a new company for the manufacture of speciality starches, a capital outlay of Rs. 68·60 lakhs was indicated. The details were as given below :—

		Rs./lakhs
A. Fixed Capital :		
1. Building (Land or lease)		5·00
2. *Plant & Machinery*		
Imported (including duty etc.)	15·60	
Indigenous	33·00	48·60
3. Know-how and Technical and Engineering Fees		7·50
Total Fixed Cost		61·10
B. Working Capital :		
Current Assets	10·50	
Less : Current Liabilities	3·00	7·50
C. Total Capital Investment		68·60

2·14 While preparing details above, the Profitability of the new Company, sales realization from special starches sold in home and export markets was assumed at Rs. 1,500/- per tonne. The cost of raw material (starch-slurry) to be used in the manufacture of special starches was estimated @Rs. 900/- per tonnes.

2·15 Subsequently, the Company submitted a revised scheme of finance indicating a capital outlay of Rs. 74·00 lakhs as detailed below :—

		Rs./lakhs
Fixed Assets :		
Building		6·25
Plant and Machinery :		
Imported (including customs duty etc.)	19·00	
Indigenous	41·25	60·25
Technical know-how		3·00
Technical Engineering Fee		4·50
		74·00
Current Assets		13·51
(during the first year of working)		87·51

The capital expenditure is expected to be incurred during the 1st year and production is also expected to commence during the same year.

Sources of Funds

2·16 The funds required for the project are to be made available from the following sources :—

	Rs./lakhs
(a) Share Capital Equity	30·00
(b) Term Loan and Deferred Payments	30·00
(c) Other Loans	10·00
(d) Unsecured Loans, Deposits	6·50
(e) Current Liabilities and Provision	1·50
	78·00

The balance of Rs. 9·51 lakhs are expected to be procured from internal generation during the first year.

Share Capital

2·17 The shares capital proposed to be subscribed is as follows :

		Rs./lakhs
	Rs./lakhs	%age of shareholding
Anil	12·00	40%
National Starch of USA (Collaborators)	12·00	40%
Financial Institutions	6·00	20%

2·18 The total assets (excluding investments) of Anil at the end of 1972 amounted to Rs. 623·44 lakhs. An investment of Rs. 12·00 lakhs in the new company, being small, will not make any significant difference to the total investment of Anil starch—the applicant company.

Loans

2·19 Rs. 30·00 lakhs are to be raised from term loans and deferred payments, In addition, a loan of Rs. 10·00 lakhs is to be raised from the banks. Unsecured loans and Current Liabilities during the first year have been worked out at Rs. 8·00 lakhs.

The borrowings will be within the normal equity/debt ratio of 1:2.

CHAPTER III

EXAMINATION OF THE PROPOSAL

Objections Received

Out of all the Chapter III references received by the Commission up to now, the number of objections to the present reference and the vehemence with which these objections were pressed was unprecedented. In all, seven parties raised objections in response to the Commission's public notification. All of them sent their objections in writing and two of the main producers of starch, Maize Products and Laxmi Starch, sent a number of communications. These two as well as R.K. Chemicals also appeared at the public hearing and made their comments. The written as well as the oral submissions made by these different parties have been fully considered by the Commission in its examination of the proposal (The names and addresses of the parties which have shown interest in the proposal have been given in Appendix 'B'.*)

Main Issues

3.2 Taking into account the proposal as put forward by the applicant company, and the objections raised to it, the following three emerged as the key issues in examining the proposal :

(a) Is there an existing demand for the speciality starches proposed to be manufactured? Is there a potential demand which is merely waiting to be activated? Is the demand of a sufficiently large magnitude and in respect of items which may be considered to be of high priority in the economic growth of the country?

(b) Is the technology required for the production of speciality starches already available tne in country, or is it likely to be available in the near future as a result of the research and development effort of existing producers as well as national research institutions? Even if this is not so, is it likely that it can be developed within a comparatively short period if the matter is given adequate priority, and sufficient resources are made available? Is the import of foreign technology necessary in this context? Is such import likely to retard and discourage the growth of indigenous technology, both in the producing units and in national laboratories?

(c) Even if it is decided that existing or potential demand justifies the setting up of a unit or units, and further that import of foreign technological know-how is necessary, is the proposed venture the best means of satisfying these requirements? In effect, this involves examination of the question whether Anil Starch and National Starch should be permitted to set up the proposed Joint Venture on the terms which have been proposed?

3.3 There would be some other issues, but these would be less important in character and would to some extent follow our analysis of these three basic issues. We shall therefore turn our attention to the above mentioned three issues in that order.

Demand for the proposed product

3.4 The applicant Company has pointed out that speciality starches proposed to be manufactured are not at present being produced in the country. Because of the import restrictions, they have also not been imported on any significant scale. It is therefore not possible to assess the demand for these products on the basis of actual use in the country. It is however claimed that there is considerable potential demand which will materialise in practice if the product is manufactured in the country.

3.5 The applicant Company has prepared its own estimate of demand for the proposed speciality starches on the basis of various data. These data mainly include the available figures of production in different industries in which speciality starches could be used and also information received from potential consumers who were contacted by the representatives of the Company. On the basis of this survey, the Company has estimated that the demand for these products would about 44,000 tonnes by 1978-79, the end year of the Fifth Plan. The estimates of demand as worked out by the Company for three years —1974-75, 1978-79 and 1983-84 are given below :—

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*After the Public Hearing was over, the Commission received a letter from the State Government of Kerala stating that, in the State Government's view, the tapioca producers as well as the tapioca starch industry would be adversely affected if the present proposal is approved. The objection has been received too late for the Commission's Report-

TABLE 2

Industry	1974-75 Tonnes	1978-79 Tonnes	1983-84 Tonnes
Paper	20,000	27,000	40,000
Foundry	500	1,500	2,500
Adhesives	250	1,000	2,000
Corrugated Box Board	2,000	4,000	6,000
Dry Cell Batteries	600	1,100	1,500
Oil Drilling	300	500	800
Food	1,500	2,000	3,000
Fibre Glass	50	200	500
Cosmetic & Perfume	250	500	1,000
Textiles (for special application)	4,000	5,000	6,000
Other Miscellaneous uses	500	1,000	2,000
	29,950	43,800	65,300
or, say	30,000	44,000	65,000

3.6 From the above estimates, it may be seen that the paper industry is expected to account for more than 60 per cent of the estimated demand. The textile industry would account for about 10 per cent. Thus these two industries between them will account for about 70 per cent of the total demand as per the estimates made by the applicant Company. It will therefore be useful to examine the greater detail the demand estimate regarding these two industries.

3.7 Before doing so, a few general points regarding demand estimates for speciality starches may be mentioned. Firstly, as would be indicated by the data provided in Table 1 above, regarding the utilisation of capacity by the existing starch units in the country, that most of these units, and especially the two major ones have not been able to utilise their installed capacity to the full extent. Inadequate availability of raw materials is said to be one factor responsible for such under-utilisation; inadequate demand is said to be the other and much more important factor, as the applicant company itself has mentioned, "installed capacities in the country are higher than the traditional demand". This is of course not to say that the demand for speciality starches may not exist, even if that for ordinary starches is saturated.

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3.8 Another important point is that this is not one of the industries for which capacity of production targets have been set up by the Planning Commission. As is well known, such targets are now being set up only for the core and basic industries where the attainment of a certain capacity and output is considered essential for ensuring balanced growth. This is obviously not an industry which can be put in that category. Not only the Planning Commission but no other authority also has been able specifically to indicate what the likely demand for speciality starches would be. The Commission consulted the Ministry of Industrial Development, the Directorate General of Technical Development and various national laboratories in this regard. While the DGTD has indicated that speciality starches could be used in various industries such as paper, textiles, fibreglass, food processing and pharmaceuticals as well as oil drilling no estimates about the current consumption or future demand have been made. It is also stated that some of the speciality starches are at present being imported under different patent names, but no consolidated record of the imports for the past few years is available. The national laboratories have also stated that while some of them think that there would be demand for such starches they cannot make any quantitative estimate of such demand. Some of the objectors have also drawn attention to this point, stating that there is practically no demand for these starches at present and further that, if the demand was of a large enough magnitude and intensity, the whole question would not have been so obscure. If some key industries badly needed these starches, they would have made vociferous demands for the import of these products and demand estimates would not then have been guess estimates as they are at present.

Demand for Paper Industry

3.9 The DGTD has stated that speciality starches can be used for the following purposes in the paper industry :

1. Wet end additive
2. Surface sizing

3. Coating
4. In the manufacture of corrugated box boards.

The Regional Research Laboratory, Hyderabad, has stated that the paper produced in India at present is not of high enough quality, and non-availability of speciality starches and starch products is an important factor responsible for this. According to it, several grades of speciality papers are being imported due to this situation. On the other hand, ATIRA has pointed out that, to the best of its knowledge, the entire requirement of oxidised starch in the paper industry was being met by the production of such starches by Maize Products. Its view is that demand for such starches in the next five years could be met from this source. The Indian Paper Mills Association, Calcutta, has stated that the use of speciality starches can improve the quality of paper. The Association has however stated that mills like Orient Paper already used the available starches in India. The consumption of starches varies according to the quality of paper produced. Speciality papers required larger consumption of starch. The All India Small Paper Mills Association, Bombay, has stated that the quality of starch currently available in the country is inferior. Therefore, if speciality starches become available in adequate quanlities, the quality of the paper produced can be significantly improve. Hindustan Paper Corporation (a Government of India Undertaking) has pointed out that the demand for starch was likely to increase in future as the quality of paper is improved. It also pointed out that the cost of production of paper may be reduced in some cases through the use of starches as these can be substituted to some extent for some other chemicals. The increasing use of hard woods in place of bamboo and other conventional raw materials for the manufacture of paper may also result in increasing use of starch.

3·10 Indian Paper Makers Association, Calcutta, has explained the position regarding the paper industry in some detail. It has been pointed out :

> "It is true that some amount of starch can be used with advantage in the manufacture of certain varieties of paper, Addition of starch for starch products is useually made to pulp in the stock preparation stage and the proportion is not more than 2-3%. The other area where solutions containing starch along with some other similar materials are used is in the surface sizing of paper on the machine. The main advantage obtained by using starch in stock preparation is increased strength, particularly bursting strength while the advantage of sizing the paper on the paper machines in a size press or similar equipment are—
>
> 1. Better printing reception.
> 2. Reduced tendency towards fluffing.
> 3. Increased pick resistance.
> 4. Improved smoothness and finish.
> 5. Improved resistance towards oil permeability.
> 6. Improved burst strength.
>
> "In India, starch is not being used as extensively as it should be and the practice varies from mill to mill. One of the reasons may be that most of the paper machines in India are not equipped with the size press and the beater additive type of starch is currently in disfavour. The cost of starch vis-a-vis the selling price of paper is also an important factor in the final reckoning.
>
> "The consumption of starch or modified starches in the paper made is in the region of 1 to 3%. It is true that some modified starches are also used in place of ordinary starch but the choice of the type of modified starch will depend upon the end-use as well as the degree of modification made. The degree of modification should only be sufficient to enable the starch to be used on the size press as the more modified the starch becomes, the greater is the degree of its bonding strength. The drawback of modified starches is mainly the high viscosity of the solution which limits its use........It is however felt that provided the cost of starch and its derivatives could be reduced and the right grades are made available to the industry, it can make more effective use of the material. In the final analysis, the amount of starch that the industry would be able to use will depend upon the willingness of the consumer to pay marginally higher price for the paper, commensurate with the improvement in the quality.
>
> "The real increase in the demand for starch and its derivatives would come from reduction in cost and the willing acceptance by the consumer of a some what higher price for a better quality paper, rather than by improvement in the quality of starches".

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3·11 The Association has questioned the proposition that non-availability of speciality starches is a significant factor in the low quality of paper produced in the country at present. According to it, the production of poor quality paper is more related to the type of raw materials available in the country and the unwillingness of the consumer to pay a higher price commensurate with the improvement in quality. According to it, the use of speciality starches is not likely to reduce the cost of producing the paper; if any thing, the cost is likely to be somewhat higher. Quality improvement would be mainly in respect of surface sized paper, the extent of improvement depending upon various factors such as quality of the starch, the grade of paper, and correct application. It will be seen that the main emphasis of this answer is that the cost of the starch will have to be sufficiently low if it is to be used in significant quantities in the paper industry. The alternative would be for the consumer to show readiness to pay higher price for improvement in quality.

3·12 At the time of the public hearing, an affidavit by Dr. R.L. Bhargava, a Paper Technologist, was submitted on behalf of Anil. The main points made by Dr. Bhargava were as follows :—

(1) At present, the paper industry in India is forced to use only sub-standard starches which are indigenously available as there is no manufacture of cationic starches.

(2) For producing paper of good strength and quality, cationic starches are essential. They are a welcome retantion aid to the paper and pulp industry. They not only retain the fillers and fibres but also reduce the cost of production and substantially improve the quality.

(3) Cationic starches are more effective and efficient binders for higher retention of fibr and pigments. The use of these starches not only improves the quality but also increas the yield of paper; and reduces the affluent problem by retaining the fibre and filler on the paper web.

(4) Hypochlorite oxidised starches are not effective for these various purposes.

Dr. Bhargava had also mentioned that, according to his own information, indigenous know-how and technology for speciality starches such as cationic starch is not available in our country.

3·13 Anil has pointed out that they have received a number of indications from paper mills that speciality starches will be used by the industry when they are available. The projections regarding demand for speciality starch in the paper industry have been presented by them in the following manner :

"The present production of paper is 803-543 tons (Source : Indian pulp & Paper, Volume 28, July, 1973). The future production of paper is estimated as under (Source : 4th-5 Year Plan Draft, 1969, page 37) :

Year	*Production*
1973-74	960,000
1978-79	1350,000
1980-81	1600,000

From these figures, the production for 1974-75 and 1983—84 is estimated at 1,000,000 tons and 2,000,000 tons respectively.

Generally 2 to 5% starch is used in the manufacture of paper. Because of high cost and inefficient performance of the ordinary starches locally available, paper industry in India has not been using starch in substantial quantities so far in the manufacture of paper. In U.S.A. where speciality starches are very freely available, paper industry uses about 300,000 tons of starch per year. With the improvements of quality and efficiency, paper industry contemplates, the demand for speciality starches will be generated in a large volume. From the advice of experts of national Starch, and from the information collected during the visits to paper manufacturers, it is estimated that at least speciality starches to the extent of 1 to 3% of the production of the paper will be required, depending upon the quality of the paper, raw material and process. Taking an overall consumption at the level of 2% requirements of speciality starches for the year 1974-75, 1978-79 and 1983-84 are estimated as under :—

Year	*Tons*
1974-75	20,000
1978-79	27,000
1983-84	40,000

3.14 Thus the Company has assumed that speciality starches will be used for the whole production of paper and they have estimated the requirements on the basis of 2% by weight of the expected production. In this connection, it may be noted that an authoritative study on the subject has stated that "practical experience has shown the normal mill addition rate to be in the range of 2 to 5%*. Another authoritative work supports this conclusion: "However, practical experience has been that upto 5 to 7% starch, and even higher, on the basis of the pulp, can be used with beneficial results, although normally between 2 to 3% starch is the most economical". **Thus it may be stated that the assumption that starch requirements calculated at 2% weight of paper may not be considered unfeasible or inappropriate. It should however be noted that, according to the Hindustan Paper Corporation, the use of starch may be estimated on the basis of 1% on the production of cultural paper. Moreover, the question that still remains to be sorted out is whether, in the context of the Indian situation specially as it affects the paper industry, the use of speciality starches would prove to be economical.

3.15 As mentioned earlier, one point made before the Commission was that some paper mills have found even the cost of the existing ordinary starches to be too high. It has also been suggested that, for use as wet and additive, gum may prove to be more economical and effective in our context. The question was therefore asked at the public hearing to Anil whether, in view of this, it was likely that, even if speciality starch was available, the Indian paper industry would be able to afford their use. The answer given by the Company was two-fold. A pamphlet regarding the use of one cationic starch produced by National Starch was made available in which a conclusion was suggested that the use of this starch normally affected "25-35% reduction in natural binder cost when it is used to replace protein or cassin". A pamphlet about another cationic starch suggested that the speciality starch could help reduce the use of other raw materials. Such as gum and thus lead to significant cost saving. It was of course admitted that the results would be dependent upon the costs of the other materials and the costs of speciality starches. The point emphasised was that such results may also be obtained in India. It was also suggested that paper manufacture becomes more economical through faster speeds and greater production without any loss of strength in the paper. Some relevant data about an experiment in the United States based on National Starch products were made available to the Commission. To what extent such possibilities would operate in the Indian context would, of course, depend upon the type of machines and the raw materials used as well as upon the speciality starches. Our conclusion can only be that it is possible that speciality starches could be useful for the purpose of improving the quality of paper production and, to some undefined extent, its quantity. To what extent it would be economical in the Indian context is something on which no clear opinion can be formed on the basis of the data available to us.

3.16 In the Draft Fifth Five Year Plan, the production of paper and paper board has been estimated as under :

1973-74	8,30,000 tonnes
1978-79	12,00,000 tonnes

If the demand for speciality starches is estimated as 2% of this quantity, it will amount to 24,000 tonnes by 1978-79. If it is estimated at 1% it would amount to 12,000 tonnes. This would of course also cover oxidised starches which are at present being produced by Maize Products and others, and are being used by the paper industry to some extent.

3·17 Questions have been raised about whether starch of any type will be used for all varieties of papers, specially in view of the fact that at present very little is being used. It has been claimed that the uses of starch and specially of cationic starch would be confined to speciality papers and to paper varieties where special strength is required such as kraft papers. In an enquiry of this type, it is not possible to go into all these details. Definite data about the quantity produced of individual varieties of papers and estimates of production for such different varieties for the future are not available. Moreover, such detailed examination is not necessary for our purposes. As the authority quoted above suggests, on a rough and ready basis, the use of starches can be taken at the percentage by weight of the quantity of paper produced. In the Indian context the assumption of 1 to 2% appears to be reasonable. It may therefore be safe to assume that demad for starches for the paper industry by 1978-79 may well lie between 12,000 and 24,000 tonnes and this estimate would include all variety of starches, including oxidised as well as cationic starches.

3.18 It has been pointed out by the applicant Company that cardboard, an especially boards for producing corrugated boxes, can be produced with considerable improvement in their quality if certain special starches can be provided. It was specially emphasized that, as the supply of wooden boxes is becoming scarce and costly, there is need for cardboard packaging on a larger scale. With increasing export of many items including fishery products, the availability of good quality corrugated board boxes would be of some importance. The Federation of Box Manufactuers of India also indicated that its members are likely to require starch in large quantities in the coming Years —4,500 tonnes in 1974, increasing to 5,300 tonnes in 1978. How much of this will be special starch will of course depend upon the price of that starch as against ordinary starches presently available. The Indian Institute of Packaging has also indicated that about 90,000 tonnes of Kraft paper is converted into corrugated sheets. About 4,000 to 5,000 tonnes of starch is used as adhesive by the corrugated box industry. This may well increase to about 8,000 tonnes by 1978-79. Anil has taken the view that about 4,000 tonnes of speciality starches will be required for the corrugated box board industry by 1978-79.

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*Starch: Chemistry and Technology Vol. II (Industrial Aspects) Edited by Roy L. Whistler and Eugene F. Paschall Academic Press New York and London, 1967—PP. 128-129.

**Pulp & Paper, Vol. II (Second Edition) by James P. Casey, Interscience Publishers, Inc, New York, 1961, p.957.

Textiles

3.19 Our enquiries have revealed that speciality starches are used for sizing of blended fabric to give them sufficient resistence so that there may be less warp breakage in the weaving. Anil has stated that its use for sizing of viscose acetate, wool-nylon, polyester, and acrylic fibres is also recommended. However, during our discussions with the representatives of ATIRA, we were informed that such starches are not required for purely synthetic fibres.

3.20 It has been stated that at present sizing materials formulated from polyvinyl alcohol (PVA) are used for sizing synthetic blended fabric. PVA, it is said, is presently being imported; and manufacture of speciality starches by the applicant Company will lead to import substitution. Enquiries by the Commission have, however, revealed that M/s. Cellulose products of India Limited, Ahmedabad, are shortly expected to commence the production of PVA with an installed capacity of 500 tonnes per annum. Cellulose Products have stated that their contemplated production of 500 tonnes of PVA should be sufficient to meet the present and contemplated demand for the polyester fibre industry in the near future.

3.21 The Commission has obtained some independent views regarding the demand for the textile industry. These views are as follows :—

(*A*) *Chemicals & Fibres of India Ltd. Belapur Road, Thana* (*Maharashtra State*):

According to this Company, speciality starches like oxidised starches, starch others, etc. are normally used at a 5 to 10% concentration in polyester/cellulosic yarn during warp sizing. From the present capacity of 24,000 tonnes of polyester per annum in the country, this company expects that about 20,000 tonnes would be consumed in blended fabrics and these will get converted to approximately 30,000 tonnes of polyester/cellulosic yarn which will require, 2,000 tonnes of modified starch per annum.

(b) *Ahmedabad Textile Industry's Research Association* (*ATIRA*):

This association has projected the demand in the following manner :—

(its source for statistics is the report of the sub-committee of the Development Council for man-made textiles on demand estimates of synthetic and cellulosic textiles, "*synthetics and fibres*", April-June (1973) — pp. 7-28).

1.	Present installed capacity of polyester fibre manufactures	18,000 tonnes
2.	Capacity likely to reach during 1973-74	24,000 tonnes
3.	Further increase in capacity during the next few years. (30,000 tonnes in Assam, 6,000 tonnes in Punjab)	36,000 tonnes
4.	Total capacity to reach in the next few years	60,000 tonnes

Of the estimated 60,000 tonnes of polyester fibre to be produced, 35,000 tonnes would be consumed by cotton and woollen mills. For blended fabrics, an estimates of 30,000 tonnes (leading to 50,000 tonnes of mixed product) can be made. On the basis of 10% size add on, approximately 5,000 tonnes of PVA substitute, principally starch derivatives, would be required. In addition, 5,000 tonnes of special starches may be required as a base size.

3.22 Anil's estimate of demand for textile sizing is 5,000 tonnes for 1978-79. This is much larger than the estimate of Chemicals and Fibres, which is related only to the use of special starches for blended fabrics, and about the same as that ATIRA. The expected production of PVA by Cellulose Products has also to be taken into account for this purpose. Moreover, the Indian Cotton Mills Federation, in a letter addressed to Maize Products on 24th January, 1974, have stated that on mill has approached either the Federation or the Textile Promotion Council about non-availability of speciality starches for export of textiles. They have themselves concluded that "exports of textiles are not impaired or retarded by the non-availability of speciality starches". It may thus be seen that while speciality starches, if available, may be demanded for the sizing of certain blended fabrics, their non-availability does not appear to be leading to any major difficulty for the Indian textile industry.

Oil Drilling

3·23 Anil has stated that certain speciality starches proposed to be manufactured by it will be a more efficient substitute for carboxy methyl cellulose (CMC) which is at present used for base mud in oil drilling operations. It has been claimed that the price of the CMC is much higher as compared to the prices of speciality starches when they are produced. Anil expects that requirements of such starches by 1978-79 would amount to about 500 tonnes. It has also been stated that the Company hopes to export such starches for oil drilling operations to some countries in West Asia from where a few enquiries regarding such production have also been received.

3·24 The Commission's enquiries from the Oil and Natural Gas Commission (O.N.G.C.) have revealed that, for drilling operations in India base mud is prepared mainly with bentonite powder or other mud making clay locally available. It has also been mentioned that CMC is used as a water loss reducing agent and, if a starch is found to be a suitable and economic substitute, the requirement can be three to five tonnes per well. Cellulose Products who produce CMC at present have expressed doubts whether speciality starches would be as effective as CMC. The O.N.G.C. have also stated that if special starches are found to be suitable and economic material for making "low solid mud" in place of conventional benetonite mud, the requirement may be 12 to 15 tonnes per well. O.N.G.C. have also stated that they have recently attempted to use an item called "Daxtrid" for off shore drilling. This is a proprietory item sold by another U.S. producer, and it is not clear whether this is a special starch or some other type of compound. The O.N.G.C. have therefore stated that at this stage it is not possible to be certain about how far the proposed starches will be suitable and in what quantity they may be required.

Dry Cell Batteries

3·25 Anil has pointed out that special starch of certain type would be of much use in the production of dry cells, the requirement being 1 to 1·5 tonnes per one million cells. On this basis it had estimated starch requirements for such batteries to be 1100—1600 tonnes by 1978-79.

3·26 According to some dry cell manufacturers to whom the Commission had written, the starches already being produced in the country are being used by the dry cell manufacturers. The utilisation of starches varies from 1 to 1·5 tonnes per million cells according to the type of battery, but one tonne per million is thought to be a good average basis for calculating demand. It has been stated that while there has been no difficulty about the availability of ordinary processed starch, speciality starches may provide a basis for improving quality, both in terms of shelf life and leak resistance.* According to the Draft Fifth Five Year Plan, the expected production of dry cell batteries in 1978-79 is 1300 million cells.

The estimated demand for starches may therefore be put at 1300 tonnes. This will of course include the processed starch already being used as well as the special starches proposed to be produced by the Joint Venture.

Foundry

3·27 Anil has pointed out that, while cheaper binders like molasses, sulphite and lye are used in the foundry industry on a large scale, speciality starches will be important for special applications. As demand for precision castings is growing, speciality starches to the extent of about 1500 tonnes will probably find a market in the foundry industry.

3·28 The Commission's enquiries from the foundry industry suggest that, in addition to traditional materials, dextrine are also used in the foundry industry in India. Different degrees of water soluble dextrins are used for different purposes in the industry. Such dextrins are already being produced by the present starch manufacturers and no specific demand for special starches has been indicated.

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*After the Public Hearing, the Commission has received a letter from Union Carbide, the major manufacture of dry cells in India. Union Carbide at present uses processed starch for its dry cells production, the suppliers being Anil Starch and Sayaji Starch (Maize Products). It has been further stated : "speciality starches are very much needed for dry battery as it performs a number of varied functions like forming a part of the ingredients of the separators between anode and cathode, vehicle for electrolyte etc." Certain special properties required both for the process and the product are not present in ordinary starch. It is this Company's view therefore that additional facilities for the manufacture of speciality starch need to be established in the country.

Adhesives

3·29 With the increasing use of adhesives, Anil has claimed that there would be demand for speciality starches for this purpose. Animal glue which is used for certain types of adhesives at present gives a bad odour and speciality starches, it is claimed, would be a much better substitute. It is therefore suggested that there may be a demand for 1,000 tonnes of speciality starch for this purpose.

3·30 In this connection, the Shriram Institute for Industrial Research, New Delhi, has stated as follows :—

> "In view of the fact that the import of gums and other raw materials for adhesives has been restricted or reduced to barest minimunm, starch 'speciality' products have to cater for growing Indian market and hence they have to be produced on larger scale. The present production of these items is hardly sufficient to meet the requirements even at present".

Food Products

3·31 Anil has claimed that special starches find useful application in processed foods such as canned foods, frozen foods, baked foods, dry foods, confectionary and beverages. It is also claimed that speciality starch applications also help to keep the food in acceptable form, to avoid deterioration on storage and retrogradation at low temperature. Normal maize starch or tapioca starch may not fulfil these functions. The applicant Company has claimed that processed foods are becoming popular in the urban areas in India. It is therefore been suggested that the demand for speciality starches for these applications may easily amount to 2000 tonnes by 1978-79.

3·32 The DGTD have stated that in canned food, certain speciality starches may be of use to provide better heat processing and more nutrition. The use of speciality starches may also play an important role in severely processed foods and frozen, dried and dehydrated foods.

3·33 Anil has also emphasised the importance of special starches in the production of baby foods. In this connection, communications made available to us from the Kaira District Co-operative Mills Producers Union, Anand and the Glaxo Laboratory, Poona, indicated that these two concerns do not use speciality starches at present for their baby food products. This is of course not to say that such starches may not be used if they are available.

Other Uses

3·34 Anil has also pointed out a number of other uses of speciality starches such as the glass fibre industry, the cosmetics and perfumes industry, laundries, the production of cigarettes, detergents, dusting powder and surgical dressings and also in water treatment plants. There is no evidence that any of these industries are at present badly in need of such starches. It is however possible that if special "tailor-made" starches are made available for use in these industries at economical prices, they may be used.

3.35 To sum up, our examination of the demand estimates put forward by Anil together with the data made available by others and collected by the Commission suggests that there is no demand for speciality starches which can be considered to be a pressing one. Even in the paper industry, where the applicant Company expects the maximum demand to arise, the demand is not a felt one in the sense of the industry wanting the speciality starch so badly that it would otherwise like to import these products. Tolerable substitues in the form of processed starches already produced are available. Similarly, in the textiles industry, some substitutes such as PVA are likely to be available in the country. A similar situation is to be found regarding most of the other uses indicated by the applicant Company. The conclusion therefore is that there is no pressing demand for the proposed products the non-fulfilment of which can adversely effect industrial development or consumer satisfaction. At the same time, enough material has been made available to the Commission to suggest that, if such starches become available, they would be of use in improving quality and to some extent also help improtant purposes like building up exports. At the same time, it cannot be overlooked that there is a significant overlapping area where the production of processed starches based on indigenous technology at present may be adversely affected in terms of demand as a result of the proposed production based on imported technology. This aspect of the matter will also have to be taken into consideration.

Availability of Maize

3·36 Another angle to this question, which we shall consider further, is that unless maize production is additionally undertaken for the purpose of speciality starches, the proposed production would have to compete for the same raw material with existing production. One of the major factors limiting production of the existing units appears to be the shortage and the high prices of maize in India. Anil has stated as follows in this context :—

> "It will be appreciated that with the introduction of hybrid maize, the maize crop has been continuously increasing in the country. We give hereunder the figures of the maize crop for the years 1949-50 to 1970-71 (Source : Table 2·1, page 7, Food Statistics. Directorate of Economics and Statistics, Ministry of Agriculture, Government of India, 1972) :
>
> | *Year* | *Thousand Tonnes* |
> |---|---|
> | 1949—50 | 2,046 |
> | 1950—51 | 1,792 |
> | 1955—56 | 2,602 |
> | 1960—61 | 4,080 |
> | 1961—62 | 4,312 |
> | 1962—63 | 4,607 |
> | 1963—64 | 4,561 |
> | 1964—65 | 4,664 |
> | 1965—66 | 4,823 |
> | 1966—67 | 4,894 |
> | 1967—68 | 6,270 |
> | 1968—69 | 5,701 |
> | 1969—70 | 5,674 |
> | 1970—71 | 7,413 |
>
> It can be seen from these figures that the production of maize has been continuously increasing. In 1970-71 when 7·4 million tons of maize was grown, the Industry had no difficulty in procurement of raw material. However, in the last year there was a serious drought, and this year, a heavy downpour and floods. Due to these two successive calamities, the crops in the country were unsatisfactory and there was a general shortage of foodgrains.
>
> "These conditions will not be a continuous feature. The targets of food crops for the 5th Five Year Plan indicate that there will be a substantial surplus of maize. In this connection we enclose a photostat copy of Agriculture Industry's News Published by the Corn Refiners Inc. Volume 5, No. 2 of July, 1973 marked Annexure 10·3. It can be seen from this bulletin that an explosion in the corn yields has occured in U.S.A. with the availability of nitrogenous fertilizers, between 1955-1970 and that their yields have risen from 39 bushels to 78 bushels per acre (equivalent to 2 tns per acre). India's yield per acre today is approximately 0·5 ton of maize per acre. (Source : Fertilizer Statistics 1971-72 page 515, Fertilizer Association of India, New Delhi-1). Nitrogenous fertilizers had been in short supply in the past 3 years, but new plans are underway to increase fertilizer production in a big way in the country. With the nitrogenous fertilizers becoming more freely available, it will not be wrong to hope that the yield of maize may well increase to 1·0 ton per cacre by 1978-79. The present area under the maize crop is 14·6. million acres (Source : Fertilizer statistics 1971-72, page 515). This area is also on the increase. From this we feel that there would be no difficulty in obtaining 20,000 tons of additional maize required for this new project".

3·37 While it is true that production of maize has increased substantially, its availability for the starch industry has to compete with its use as food for the population. In certain periods of acute food shortages, Government has denied the use of maize to the industry. While it is true that the productivity in maize cultivation, like agricultural productivity in practically all crops, is low in India to that prevalent in countries like USA, we cannot jumps to the conclusion that this situation is going to be remedied drastically in the near future. There are many problems regarding the availability of fertilizers, better seeds etc. We need not go into all these for the present purpose. In our view, unless additional maize cultivation is undertaken specially for industrial purposes (we discuss this problem later), the proposed project cannot but compete with the existing starch manufacturers for the availability of the basic raw material, *viz.*, *Maize.*

Import of Technology & Its Implications

3.38 The next question which is of importance in examining the case is whether the import of technology for the production of speciality starches is advisable and what its likely impact would be on indigenous development of technology. This question has been discussed quite extensively earlier in a meeting called by the Council of Scientific and Industrial Reseacrh and also at the public hearing about this case. There is no doubt that it is of considerable importance in the present context

Anil's Case

3.39 Anil has explained that the question of technology necessary for developing the production of speciality starches should be examined under two heads:—

(1) Manufacturing technology, and

(2) Application technology.

The manufacturing technology consists of (a) laboratory scale process development, (b) pilot plant scale process development, (c) design and engineering of equipment, and (d) plant scale production. It has been pointed out that, though some of the national laboratories do have facilities to study the reactions of some re-agents with a view to developing a process, they are neither equipped to try the process on a pilot plant scale nor can they offer complete design and engineering data for developing a product on a plant scale.

3.40 Anil has further pointed out that application technology requires detailed study of the product for a particular use. The speciality starch products with different degrees of modification with different adjuncts might find application in various fields. Relatively small differences may make a very large difference in the application potentiality of a product. "A difference of 0.02% in the treatment of a cross linked food starch can make the difference between an acceptable and an unsatisfactory starch for thickening canned foods. Very small differences in treatment and viscosity can determine whether a gumming dextrin used to apply adhesive to the backs of postage stamps will give stamps that will stick when used or will fall off." It has been suggested that it is such detailed knowledge of application technology which is the special know-how developed over the years by a Company like National Starch—the proposed collaborator. It is pointed out that there is no laboratory in India which has experience or equipment to evaluate or to develop application technology in this line of production. In the absence of such a facility, repeated plant scale trials will be required, and no user of the product would agree to such trials on a continuing basis.

3.41 It has also been pointed out that the existing starch manufacturers in the country do not have adequate research facilities. While all the three main manufacturers have been doing some product development work, the staff and facilities available with them are quite inadequate. The facilities available in the national laboratories are also inadequate. Thus neither the industry nor the laboratories in the country possess capacity to develop speciality starches and their applications in various industries.

3.42 It has been further pointed out that the development of the starch industry to its present level has been accelerated mainly through foreign assistance. As pointed out earlier, the design of the plant of Anil was made by a German national. An American consultant designed its dextrose and glucose syrup plant. Enzyme and dextrose production was established in collaboration with a Japanese company. The manufacture of glucose isomerase and isomerised syrup is being established in collaboration with another Japanese company.

3.43 Anil has also pointed out that Maize Products, the other major producer of starch in the country, developed its dextrose and glucose syrup plants in collaboration with a French firm. The manufacture of Dextrose and acid modified thin boiling starches was established in collaboration with an American company. The process of manufacturing enzymes and dextrose was established in collaboration with another American company and manufacture of glucose isomerase etc. is being established in collaboration with a Japanese company. It was also alleged that Maize Products has obtained the know-how for the manufacture of some speciality starches from an American company on the basis of exchange of technology.

3.44 The main point emphasised by Anil is that the development of the starch industry in the country up to now has been largely on the basis of collaboration with foreign companies in some form or the other. Due to various reasons, research in starch technology has not received adequate attention in India either from manufacturers or from national laboratories. Thus it may take quite a long time—possibly over three decades—before the already available technology can be developed indigenously. Import of technology is thus necessary in order to buy time. Especially in the field of chemical technology, it was claimed by the applicant company, knowledge doubles every ten years and unless we buy time by importing technology we would be lagging behind for all times to come. Starch technology has been best developed in the United States. Even advanced countries like Japan, France, the United Kingdom and Canda have welcomed the import of technology developed by National Starch for speciality starches by permitting establishment of companies which are associated with or are subsidiaries of National Starch. There is no reason, therefore, for India to fight shy of the proposition that technology should be imported. In this part of the world, there is no other large producer of speciality starches. If India imports this technology and establishes production on this basis, it will have obtained a lead in establishing this line of production in our part of the world. The import of technology would thus help India to build up a base position in this industry so as to enter the international market.

Objections

3.45 As against this, Maize Products pointed out that the technology involved in the manufacture of speciality starches is perfectly within the competence of indigenous, Indian technology. The essence of the technology of speciality starches is well-known; the patent books give all the necessary data. If there is demand for a particular starch, it can be produced within a short time after some experimentation in the country. It was lack of demand, non-availability of certain chemicals and non-availability of special maizes which were the factors which have prevented the production of special starches in India' not the lack of technical know-how.

3.46 While Maize Products admitted that they have obtained certain know-how from foreign companies in the past, their attempt has been to obtain the minimum data required and then develop it further in the country. The idea is not to isolate the country from foreign know-how but only to obtain what is essential at the cheapest cost and then to develop it further through research and experimentation in the country itself. The most important point made by them in the present context was that certain speciality starches for application in the paper and textile industries have been developed in India by ATIRA, NCL, Shriram Institute and the Electro-Chemical Research Institute at Karaikudi. Certain processes developed at ATIRA have been licenced to Maize Products and their production and further development have been undertaken. It was emphasised on behalf of Maize Products that pilot plant type of work can be done to some extent in the Indian laboratories and institutions such as ATIRA's own pilot plant, and, for the paper industry, in the Forest Research Institute at Dehra Dun, and the Institute of Paper Technology at Saharanpur. Their feeling was that the object behind the proposed import of technology from National Starch is not primarily technical but commercial and that such import would adversely affect the use and therefore the further development of indigenous technology.

3.47 Another producer of starch, Lakshmi Starch, raised somewhat similar objections to the import of technology. Lakshmi Starch emphasised that it was on stronger grounds in raising this objection as it had developed its production without any foreign collaboration or import of technical know-how. It was confident that as in the past so also in the future, the development of speciality starches on the basis of indigenous know-how would be possible as and when the requirement for these starches was actually felt with the development of different industries in the country. It also pointed out that application technology of other countries may be of little value in India because conditions here in respect of the nature of production, volume, quality of available raw materials and the type of machinery used may be quite differet from these prevalent abroad, and especially in an affluent economy like that in the United States. Considerable work will therefore have to be done in India before the speciality starches developed in the United States can be accdpted as "tail or made" to suit the requirements of Indian industries. The import of application technology was therefore not likely to be of much practical utility. This aspect was also emphasised by Maize Products. It was also stated that work was in progress on hydroxy ethyl starches and the development of processes for the manufacture of this type of starch may not be difficult. ATIRA's process of oxidised starch is already being used by Maize Products. The representative of R.K. Chemicals pointed out that for dextrin—a starch product used for foundry purposes—the Indian Standards Institution has already laid down a specification, and some manufacturers were already producing products to suit such a specification.

Views of Experts

3.48 Looking at the very different approaches and assessments placed before the Commission, we thought it necessary to obtain independent information from research laboratories and institutions. The Ahmedabad Textile Industries Research Association pointed out that it has developed the process for the preparation of certain oxidised and cross-linked starches and dextrins. ATIRA also stated that it was understood that a process for the preparation of carboxymethyl starch has been developed by Maize Products and the product as being evaluated for textile end-uses. "As far as our knowledge goes", ATIRA pointed out, "Maize Products are meeting the entire requirements of oxidised starch for the paper industry. In our assumption, they should be able to meet any increased demand of this derivatives of starch in the next five years." A further pointed made was that most of the other starches proposed to be produced by the Joint Venture were not being manufactured in India and that "in fact markets will have to be developed for these items." About the development of such new starches in India, ATIRA pointed out, "whereas the development of processes on the laboratory scale....can be done in ATIRA if required within a relatively short time, scaling up to pilot plant and translation of these results into full scale manufacture will take a fairly long time. In addition, considerable work will have to be undertaken in evluating these products by performance test. Since National Starch and Chemical Corporation of USA are recognised leaders in the field of starch derivatives, they may be able to provide forthwith detailed technology know-how for the manufacture and application of speciality starches." Dr. Srivastava, the Scientist in charge of starch development in ATIRA, stated further at the public hearing that it was his view that the work that they had done and the work that is further progressing could meet the requirements of the textile industry. Some part of the requirements of the paper industry were also likely to be fully met by the processes already developed. As for other speciality starches, his view was that there was no laboratory as yet which was specially organised for the development of starch technology. Whether it was ATIRA or any other laboratory, starch technology was a sideline at present. He did not think that the development of this technology was beyond the competence of the scientific and industrial talent available in the country. The question was one of resources. In his view, it would take two to three years to develop a particular process application and another year or two for the detailed technology to be worked out. One research team would thus take about five years to establish the production of a particular starch variety or a group of related starches. If a number of teams could be set up simultaneously, a number of starches could be developed in five years. Otherwise, a much longer period may be required. It all depended on the priority that was given to these developments and the resources made available.

3.49 Some of the other national laboratories pointed out that they had developed certain processes in starch technology. The Shriram Institute for Industrial Research pointed out that it has developed a process for the manufacture of carboxymethylated starch which is already patented and which may match with some of the items. A process is already licensed for the production of starched for adhesives. It was similarly pointed out that the National Chemical Laboratory, Poona had developed know-how for starch products useful for paper adhesives. The Central Electro-Chemical Research Institute, Karaikudi, had developed a process for dialdehyde starch but no interest has been shown for commercial exploitation by the concerned industries. A process for TKP powder and another for a substitute for arabic gum had also been recently developed. The letter from the Shriram Institute emphasised that only some of the special starches proposed to be produced appeared to be of types for which the technology was not likely to be available in the country and might therefore have to be imported.

3.50 The Council of Scientific and Industrial Research informed the Commission that there is a good deal of competence for process development as well as for undertaking design and engineering of the processes developed in the country in regard to the starch industry. It also indicated that in its view, while many of the varieties of starches proposed to be produced are not manufactured in the country, there is not urgent need to establish their manufacture as there is no demand. Nor were any imports taking place. "As and when demand for these starches arises, country has enough competence in process development, design and engineering and application facilities to develop the same." Shri Baldev Singh of the Council of Scientific and Industrial Research, who represented the Council at the public hearing, agreed that, though some work had been done in various laboratories, the development of starch technology, had been up to now a comparatively undeveloped area. He agreed that even in the perspective plan of technology development, starch technology had not been given any importance. He however felt that in view of some of the recent develop.. ents in starch applications, it will be useful to give more attention to the development of this technology. Some thought was being given to the development of Centre where this technology could be developed. While there need be no objection to importing technology if it would save a great deal of time, he did not think it necessary to import technology for various detailed applications. Moreover, he would be in favour of obtaining the technology on a down-payment basis so that further development of that technology would take place in India. Continuing import of technology may not be desirable. This may also prove to be costly.

3.51. The DGTD pointed out in its communication to the Commission that there are varieties of special starches for which no local technology has so far been developed. Import of technology on a payment basis in such case may be permitted. At the same time, steps should be taken by the company which imports technology to set up R&D facilities for absorbing and improving on imported technology. It was also suggested that, although the development of speciality starches by the existing unit may be feasible, elaborate testing arrangements for developing end uses may be necessary. Laboratory and other facilities for studying and uses of modified starches for a variety of purposes may not be available in the country. A Representative of the DGTD who appeared at the Public Hearing reiterated this point of view and suggested that import of such technology may be justified specially, if directly or indirectly, it helps build up an export market.

Government Policy

3.52 For examining this problem, it will be useful to keep in view the basic outline of Government policy in this context. The Draft Fifth Plan has stated that, self-reliance being a major objective of the Plan, maximum utilisation and development of indigenous scientific and technological elements are important. Highest priority will have to be given to the applications of the scientific and technological skills which have already been built up by the many R & D organisations in different areas. About the import of technology on the basis of foreign equity investment, the document points out that "in general, foreign equity investment represents an expensive form of resource transfer. That does not mean that there is no scope for such investment. If the technology happens to be of critical importance for the development of a very high priority sector, then foreign equity investment can be permitted, provided the know-how cannot be directly purchased. However sufficient care should be taken to avoid repetitive purchase of technology. Furthermore, technical collaboration should be for the process and not for the brand name as this is very expensive and unnecessary for consumer welfare.* The Guidelines for Industries 1973-74 issued by the Government of India also lay down that "foreign collaboration/investment is permitted selectively only in fields of relatively high priority and in areas where sophisticated foreign technology would become available to the country. Exceptions may be considered only in respect of export oriented schemes."† While we shall go into the details regarding the actual collaboration terms a little later, the above given quotations indicate that the basic approach is that import of technology should be considered only in high priority industries or in export oriented industries; that such import needs to be so organised that indigenous technology and its development shoul not be discouraged and further development of the technology should be encouraged. Repetitive import should be avoided. This was also a point emphasised at the public hearing by the representatives of the CSIR and also by the representatives of some of the objectors. It was even suggested that wherever possible, import of technology should be channelised so as to avoid repetitive import.

Should Import be Permitted ?

3.53 The fear that approval of a proposal such as the one under consideration can lead to competitive and repetitive import of technology is underlined by the fact that, according to Maize Products, if the present proposal was approved, it was clear that their competitive position would be adversely affected and that therefore it was necessary for them also to seek foreign collaboration. At the same time, it cannot be ignored that from all accounts National Starch is a leader in the field of starch technology in the world. It has a very large research organisation which specialises in starch and related technology; its prominece in the field was accepted by all those who were consulted by the Commission. Looking at the fact that National Starch has made available its technology up to now only to concerns in which it has substantial equity participation indicates that the know-how available with it cannot be obtained except on the basis of the kind that is now proposed. It will therefore not be a practicable proposition to think in terms of obtaining technology from National Starch on the basis of a once-and-for all payment, or on the basis of channelised import after which technology can be made available to all starch producers in the country. The choice is between obtaining National Starch technology broadly on the terms suggested in the proposal, or not obtaining it at all. From the information available, it appers that the know-how which Maize Products proposes to obtain will be on the payment of a technical know-how fee plus a royalty payment for ten years; there would be no equity participation, and no continuing availability of know-how.

3.54 From all the material available to the Commission we have come to the conclusion that, for the immediate requirements of the textile and paper industries, the know-how already developed in the country and which can be further extended in the near future is likely to be adequate to meet the essential requirements. It also appears possible that, if starch technology is now thought to be an important area for further development, the industry as well as the C.S.I.R. will be in a position to devote more resources for such development. The basic talent for technological growth already exists, as indicated by the work done in the different national laboratories. It is also not unlikely that, if foreign technology is imported for applications which have already been developed fully or partialy and the company which imports such technology is able to exploit the foreign know-how for commercial purposes, the development of indigenous technology may be adversely affected. On the other hand, there is no doubt that, for a large variety of starch applications, the technology already available with National Starch cannot be developed in India without considerable lapse of time and much expenditure. If these products are to be developed in India, specially for purposes of building up of an export market, this can only be done speedily on the basis of imported technology. It is true that "tailor-made" applications cannot be imported readymade; further work to ensure that the application techniques are suited to Indian raw materials, production technology and volume of output will be necessary. Such work can be speedily done, if it is based on the advance already made by a prominent organisation like National Starch, and with their facilities as well as the facilities to be created in India both being available for experimental purposes. There is no doubt that these technologies can be developed in India but it is clear that some of them cannot be speedily developed taking into account the resources that can be made available for the purpose. The idea that because the basic information about the patent is available, the actual production process can be worked out immediately without much difficulty cannot be accepted. If this was so, no one will pay for obtaining the technical know how of a patented process. There are many vital details which are usually kept back in the patent description, and much more information about the actual production process which is vital for successful manufacturing. Given time and resources, there may be no difficulty in copying the know-how and further developing it; but the idea (suggested by some objectors) that because the patent is registered, know-how is available is not correct.

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*Draft Fifth Five Year Plan, pp, 18-19:

†Guidlines for Industries, 1973-74, Ministry of Industrial Development, Government of India, Page 8.

3.55 To sum up, it does not seem as if the import of technology into this area is essential to serve any high priority purposes in respect of the requirements of Indian industry. Moreover, the import of such technology can possibly have an adverse impact on the development of technology in India. At the same time if it is likely that the production of speciality starches in India can be developed substantially for export purposes, speedy development of such production may be essential; and for such development, import of technology from a prominent organisation in this line may be of considerable use.

Proposed Joint Venture

3.56 Even if it is accepted that, in case the production of speciality starches is to be established in the country and that this can be speedily achieved only on the basis of imported technology, the question remains whether the proposal for a joint venture to be established as proposed would be the best way of doing it. In this connection, we have to see whether the two principal parties involved in setting up the proposed Joint Venture are the right parties and the terms on which they propose to set up the Joint Venture are the approprite terms, taking into account the provisions of the MRTP Act and also the guidelines of policy laid down by Government.

3.57 As has already been indicated earlier, Anil is registered under the MRTP Act as a dominant undertaking. ILPIC had designated it as belonging to the Large House of Kasturbhai Lalbhai. Even though in the present applicaiton, it has accepted interconnection only with Saraspur Mills Limited at the time of the public hearing its representative agreed that, purely for the consideration of the present case, the applicant Company has no objection to be considered as belonging to the Large House of Kasturbhai Lalbhai. The Commission has therefore not thought it necessary to go into this question of the applicant Company's interconnection with the various other companies of the so-called Kasturbhai Lalbhai group. According to the present industrial licensing policy of the Government of India, large industrial houses are to be eligible for entry into industries listed in the appendix to the Government statement of February 1973. Processed starches or speciality starches as such are not included in the list. It has been suggested that these could be brought under the item "miscellaneous chemicals for industrial use only" which is one of the categories included in that list. This argument is somewhat tenuous because in effect it would mean that all kinds of chemical industries can be brought within the scope of large houses. Another point made by the applicant Company is that such starches are of importance for the further development of some of the industries included in the list open to the large houses such as paper and pulp and man-made fibres. We have seen earlier that, while special starches would undoubtedly be useful especially for the development of certain quality varieties of products in these industries, their availability does not appear to be essential for the further growth of these industries. It would not be made out for a new unit associated with Anil to be permitted to come up in this line of production if we go strictly by the announced industrial licensing policy of the Government.

3.58 The guidelines for Industries 1973-74 have also indicated the lines in which and the conditions under which foreign collaboration/investment is to be permitted. We have already indicated earlier, what the Draft Fifth Plan as well as the above mentioned Guidelines state in this connection. Foreign equity participation as a form of foreign collaboration is normally permitted selectively only in the fields of relatively high priority. Technical collaborations on the basis of recurring royalty payments are permitted in some other less priority industries. The alternative lists given for this purpose in the Guidelines does not include processed starches or special starches either for technical collaboration or for equity participation. It is however laid down that "exceptions may be considered only in respect of export oriented schemes."* Export oriented schemes in this context imply proposals where 60 per cent of the output can normally be expected to be exported. It may be noted that the proposal made by the applicant company involves only a commitment to export 10 per cent of the output.

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*Page 8, Guidelines for Industries, 1973-74, Government of India, Ministry of Industrial Development, New Delhi.

3.59 We have already indicated earlier that, while one can argue for and against equity participation as a method of securing foreign collaboration and know-how, and pose the question whether purchase of technology on a down-payment plus royalty basis for certain purpose would not be a more suitable proposition, it is no use arguing that question here as it is quite clear that the proposed collaborator in this case *viz.*, National Starch of USA is not likely to argee to terms other than those based on equity participation at least to the extent of 40 per cent. It has also been argued on behalf of Anil that even advanced countries like England, France and Japan have permitted National Starch to set up Joint Ventures with equity participation so as to secure the advanced technology in the field of special starches that National Starch alone can provide. While these examples do show that National Starch has command over technology which may be wanted even by industry in other advanced economies, that cannot be conclusive argument in the Indian context. India's is a much more planned and regulated economy as compared to those of the other countries mentioned above. India at its present stage of economic development has also to weigh carefully the costs and benefits of any development especially where it involves foreign exchange transactions because of the shortages it faces not merely in terms of overall resources but specially in terms of foreign exchange. It is therefore necesary to look at the implications of the present proposal in terms of its likely impact on the foreign exchange payments in the future.

Foreign Exchange Balance

3.60 The Company's calculations regarding the in-flow-and out flow of foreign exchange during the first five years of operation of the proposed Joint Venture are given in Statement 3. According to that statement, on the basis of 10 per cent of the output being exported, the net foreign exchange receipts on current account would amount to over Rs. 62 lakhs. If we also take into consideration the payments on capital account, the net in-flow of foreign exchange would be over Rs. 52 lakhs. It is thus claimed that permitting the present proposal would provide a net addition to the country's foreign exchange resources. On this basis, it is claimed that the proposal needs to be approved.

STATEMENT 3

Anil Starch Products Ltd.

Statement showing inflow & outflow of foreign exchange for the first five years on the basis of 10% exports

	1st Year	*2nd Year*	*3rd Year*	*4th Year*	*5th Year*	*Total*
Out-flow						
Sles Commission on Exports	1·35	1·80	2·25	2·70	3·60	11·70
Import of Chemicals	1·74	2·32	2·90	3·48	4·64	15·08
Maximum Dividend Liability (Net of Taxes) .	1·75	2·24	2·70	3·18	4·14	14·01
	4·84	6·36	7·85	9·36	12·38	40·79
In-flow :						
Sales—(Exports) 10% of the total Production	11·92	15·90	19·88	23·85	31·80	103·35
Net foreign exchange Receipts	7·08	9·54	12·03	14·49	19·42	62·56

In addition to the above, the following in-flow & out-flow of foreign exchange has been projected.

	In-flow	Out-flow
Share Capital	12·00	..
Purchase of Plant & Machinery	..	15·00
Know-how and Eng.Fees	..	7.50
	12.00	22.05

Net out-flow	10·50
Net In-flow during five years working	62·56
Excess of in-flow over a period of five years	52·06

NOTE.—Dividends have been calculated on the basis of the total gross profits assuming that total profits will be distributed by way of dividends.

1. Sales realisation from Imports has been estimated @ Rs. 3,000 less Rs. 350 Ocean freight=2,650 per tonne.
2. Sales Commission on exports has been calculated @Rs. 300 per tonne (10% of 3,000).
3. Direct material cost comprises of starch slurry cost calculated @Rs, 1,600 per tonne.

3.61 In this connection, the Commission would like to suggest that such an approach to examining the foreign exchange implications of a project is rather superficial and amounts to assuming that the use of local resources in producing the exported output can be taken as involving no cost to the country. In other words, this approach implies that earning the foreign exchange at any cost in terms of the use of local resources is worthwhile. The Commission would like to place on record its view that this is a fallacious approach. It is true that competition in international markets being keen, to establish a foothold in that market special competitive rates may have to be quoted which amount to an indirect subsidy on exports. If a particular industry has any way got to be established in the country for meeting urgent dometic demands, a small proportion of it might be exported. This may be treated as a marginal addition to the total output and therefore the full costs of producing that output may not necessarily be attributed to the exported quantity. Some kind of marginal cost pricing may be appropriate in such a context. But even in marginal cost pricing the direct cost involved in producing the output cannot be ignored. Questions may only be raised about indirect costs, factory overheads and general overheads. The idea that one should calculate the benefits from exports earned by a country purely in terms of the foreign exchange cost involved goes much beyond the marginal cost concept and assumes that the cost of domestic resources, even for those directly used in producing the exported output, need not be recovered from the realisation from exports. The Commission cannot too strongly emphasise that this does not appear to be a correct way of looking at the benefits from exports.

3.62 In examining the proposal of the present kind, this aspect of the matter assumes greater importance because the benefit that would be conferred on the country by way of exports may be the principal argument in justification of the proposal. In such a case, where the domestic utility of the project is somewhat questionable, the export angle becomes one of primary importance. In a case of this kind, it has to be ensured that there is a genuine advantage to be obtained in terms of the benefits from exports.

3.63 Statement 4 shows the projected profit on 10 per cent exports to be made by the new company on the basis of different methods of computing the cost of producing the exported quantities. This computation is based on certain assumptions, the important ones being regarding the expected realisation from exports being at Rs. 2,650 per tonne and various costs attributable to the exported output being as indicated in the statement. An important part of the cost assumption is that starch slurry would be made available to the proposed venture at a price of about Rs. 1,600, and that this can be managed without any loss to Anil. On such a basis, the margin from sales realisation amounts to Rs. 2.8 lakhs if we take only the direct material and labour costs into account. It declines to Rs. 1.4 lakhs if we take the factory cost into account, and declines further to about Rs. 0.5 lakhs if we take the total cost of production into account. If we also take into account the accrual of profits to foreign shareholders, the amount to which he is entitled in the last instance by way of foreign exchange payments, the margin is about Rs. 1 lakh when we only consider direct costs, it becomes slightly negative if we take the total factory cost, and it becomes largely negative if we take the total cost. In other words, the cost of earning a dollar of foreign exchange, taking into account the share of the foreign equity holder's profits is Rs. 6.73, if we take only direct costs into account, Rs. 7.71 on the basis of the factory costs, and Rs. 8.39 if we take total costs. These values would undergo an improvement in the Fifth year of operation by which production may be expected to be established at the full capacity of the venture. The cost of earning a dollar would then be Rs. 6.41 on the basis of direct costs, Rs. 7.14 on the basis of factory costs and Rs. 7.92 on the basis of total costs.

3.64 Taking into account the fact that the official foreign exchange rate has been about Rs. 7.50 to a U.S. dollar, the export transaction in this instance seems to be marginally advantageous in that if the costs and realisations continue to be mainly along the lines assumed, the export would be worthwhile. The assumption however is of importance because, if the actual costs proved to be much higher or the realisation lower, the small advantage arising from exports may be wiped out. It is therefore important to make sure that, if the proposal is to be approved, sufficient safeguards are

STATEMENT 4

The projected profit/Loss to be made on exports by the Joint Venture and the cost of purchasing one U. S. Dollar

ON THE BASIS OF 10% EXPORTS

		First Year			
		Cost of purchasing one U.S. Dollar through Exports			
	Amount	Exclusive of foreign share of profits to be paid to foreign collaborators		Inclusive of foreign share of profits of Rs. 1·75 lakhs to be paid to foreign collaborators	
		Margin for allowing for foreign exchange of profit	Cost of one U.S. Dollar	Margin for allowing for foreign exchange of profits	Cost of one U.S. Dollar
1	2	3	4	5	6
	Rs./lakhs	Rs./lakhs	Rs.	Rs./lakhs	Rs.
I. Realisation from Exports	11·92				
Less: Sales Commission on Exports	1·35				
New Sales realisation	10·57				
II. Cost of Production					
Direct Material	7·20				
Direct Labour	·53				
(a) Total Prime Cost	7·73	+2·84	4·48	+1·09	6·73
Add: Factory Overheads	1·39				
(b) Factory Cost	9·12	+1·45	6·47	—0·30	7·71
Add: Adm Overheads, selling and distribution.	·95				
(c) Total Cost	10·07	+·50	7·15	(—)1·25	8·39
(d) *Cost of Material + %age*					
Cost of Material	7·20				
Add: 20%	1·44	+1·93	6·13	(+)0·18	7·37
Total	8·64				

NOTE.—While preparing the estimates the following assumptions have been made.

1. Sales Realisation from exports has been estimated @Rs. 3,000 less Rs. 350 ocean freight=Rs. 2,650 per tonne.
2. Sales Commission on exports has been calculated @Rs. 300 per tonne (10% of 3,000).
3. Direct material cost comprises of Starch Slurry Cost, Calculated @Rs. 1,600 per tonne.

4. Factory Overheads includes the following :—

	First year (Rs. lakhs)	Fifth year (Rs. lakhs)
Power	1·62	4·86
Fuel	2·25	6·00
Stores, Chemicals & Spares	2·37	6·30
Depreciation	7·10	7·10
Repairs and Maintenance	·60	3·00
Allocable to exports @ 10% of total	13·94	27·26
Production	1.39	2·73

STATMENT 4—*Contd.*

	ON THE BASIS OF 10% EXPORTS			
	Fifth Year			
	Cost of purchasing one U.S. Dollar through Exports			
Amount	Exclusive of foreign share of profits to be paid to foreign collaborators		Inclusive of foreign share of profits of Rs. 4·14 lakhs to be paid to foreign collaborators	
	Margin for allowing for foreign exchange of profit	Cost of one U.S. Dollar	Margin for allowing for foreign exchange of profit	Cost of the one U.S. Dollar
7	8	9	10	11
Rs./lakhs	Rs./lakhs	Rs.	Rs./lakhs	Rs.
31·80				
3·60				
28·20				
19·20				
·77				
19.27	+8·08	5·31	(+)3·89	6·41
2·73				
22·70	+5·50	6·04	(+)1·36	7·14
2·95				
25·65	+2·55	6·83	(—)1·59	7·92
19·20				
3·84				
23·04	+5·16	6·13	(+)1·02	7·23

provided to ensure that the exports made by the proposed Venture bring no benefits to the national economy in actual practice. If the operation of the venture is so managed that there is no judging about the price to be realised from exports and the costs incurred for production, it appears likely that the country may be able to benefit from establishing this venture on an export oriented basis.

Representation of Foreign Collaborator on Board

3.65 The danger of this not happening arises from one specific aspect of the proposal, *viz.*, that not only would National Starch, the American Collaborator, have 40 per cent equity participation in the proposed venture—there may be no objection to 40 per cent equity in view of the recently announced policy of Government underlined by the Foreign Exchange Regulation Act—but also that the foreign company would have 50 per cent representation on the Board of Directors and also the right to appoint one of the two Managing Directors. The whole purpose of not permitting majority participation or even equal participation to a foreign company is defeated if such representation on the Board of Directors is accepted. Such representation obviously implies that the foreign company would have a veto on every important decision of the proposed Venture. It is well known that multinational companies have their own strategy and tactics, and various national subsidiaries or associated companies are so operated as to ensure the maximum advantage to the parent company. On the terms proposed, the Joint Venture cannot but become in effect a subsidiary of National Starch. One cannot then be certain that the decisions about sales prices and costs allocated regarding exports will not be so taken as to reduce the benefit not so much to the Joint Venture as to the Indian economy and to increase the benefit obtained by the foreign company. After all, international sales by the Joint Venture are to be affected through the good offices of National Starch who will act as export agents. This is unavoidable as that is the only basis on which the proposed Venture can establish large scale exports within a short time. But what is essential is that the Board of the Joint Venture should be in a position to ensure that national interests are safeguarded; because it is only on the basis of net benefit accruing to the country through exports that the proposal can be justified. It is therefore essential that the terms of foreign collaboration shouuld be so modified as to provide for proportional representation on the Board of Directors. As it is proposed that 20 per cent of the equity of the proposed company would be offered to financial institutions and to the general public it should be appropriate that the financial institutions should have proper representation on the Board Their representatives may be expected to make sure that the basic purpose underlying the approval of the present proposal is achieved. It may also be appropriate in such a case that if the two managing directors are to be appointed by Anil Starch and National Starch respectively, the Chairman of the Board should be a nominee of the financial institutions.

Sales Agency for Anil's Products

3.66 The present proposal has been objected to by the other manufacturers of Starch specially on the ground that the collaboration may prove to be not so much one for importing technical know-how as for obtaining commercial success in the domestic market at the cost of other manufacturers. It is feared that the reputation that National Starch enjoys, combined with the technical and commercial efficiency of their sales promotion, may create very difficult conditions for competitors. In other words, the already dominant position of the applicant company would be supplemented by the Special facilities that the new venture will enjoy and that may force the existing starch producers out of existence.

3.67 The proposal to make the proposed venture the Sales agent for the existing products of Anil is cited as an indication of the real use that Anil will make of the proposed collaboration. It is alleged that as a result of such a marketing arrangements for the starch products which are already being prduced in the country, undue commercial advantage will accrue to Anil. It is also alleged that, as a result of the proposed arrangements, the profits of the Joint Venture will be further increased and this will add to the foreign exchange liabilities arising from the implementation of thet proposal.

3.68 Anil has justified the proposed arrangements regarding the Joint Venture as a sales agen of Anil on the ground that this would ensure more efficient and economical use of the sales organisation and resources, and this would be in keeping with the considerations laid down under section 28(b) and (c). As special starches will be tailormade products suited to the requirements of particular industries and even particular units, considerable technical and commercial sales effort will be required for developing and successfully marketing these for a variety of industrial uses. National Starch will provide technical assistance to the proposed venture for setting up an effective sales organisation. Obviously, National Starch will not make such assistance available to Anil Starch. The applicant's case is that, once such an organisation is established, it would be useful if it can also be used for the sale of the products of Anil. This would make separate sales effort by Anil unnecessary and, at the same time, make an efficient sales organisation available to it on an economical basis. The Commission of 2½% on sales will merely cover the cost of the Joint Venture. After all Anil even otherwise has to incur expenditure of this magnitude or even more for its own sales organisation. In order to provide against the fear expressed at the public hearing that this will be another way of indirectly providing additional profits to the Joint Venture, the applicant company suggested that it would be quite willing to give an undertaking that any margin that remains from the commission paid to the Joint Venture after meeting the proportionate costs of sales efforts would not be added to profits but would be used for research and development. To dispel the fears of the objectors regarding unfair competition because of the reputation enjoyed by the National Starch, it was indicated on behalf of Anil at the public hearing that the name National Starch will not be used in the name of the Joint Venture and further that the products marketed (in India) by the proposed venture will not directly or indirectly be marketed with the trade marks or brand names used by National Starch.

3.69 The above mentioned assurances by Anil may be disposed of quite shortly. As the representatives of the objector companies pointed out at the public hearing, the users of the proposed products are not common consumers but various industries. The fact that National Starch is providing the technical know-how will be known to them irrespective of the fact whether the name National Starch or any of its trade or brand names are used for marketing the products or not. The proposed assurance therefore may not serve much purpose. The proposed venture cannot but obtain substantial commercial benefit out of the reputation which National Starch enjoys in the concerned market. Regarding the proposal that the margin remaining from the sales commission of

2½% being exclusively used for research and development work, it must be said that the enforcement of such an undertaking is not at all easy. What might otherwise be anyway incurred as research and development expenditure might be put as R & D expenditure undertaken from the remaining margin; there is no way of independently deciding how much R &D expenditure should any way be incurred and how much would be the extra expenditure incurred because a margin remains from the sales commission. These assurances therefore do not serve much purpose.

3.70 The proposal involves that, in addition to undertaking such supplementary expenses and providing additional assistance as Anil has been previously incurring or rendering in the past for its sales pruposes, it will pay the proposed venture a commission of 2½%. Thus there is no doubt that this will be an extra sales expenditure over and above that Anil has been incurring in the past. It is of course likely that, with the support of National Starch, the proposed venture will organise an efficient sales agency. To some extent, application technology itself is directly related to sales effort. There is also no reason why the benefit of such an efficient and effective sales organisation should unnecessarily be denied to Anil merely because it may prove to be a handicap for its competitors. However, this proposal being made a part of collaboration agreement does create a suspicion that it may possibly amount to an additional way of increasing the profits of the proposed venture. Such effort doubts need to be dispelled. It would be far better not to provide for the sales arrangements for Anil as a part of the collaboration agreement. There should however be no objection to such an arrangement being freely entered into between the proposed venture and Anil after the proposed venture is established as a separate company, and with the previous sanction of Government regarding the trading or agency activities of a company with 40% foreign equity. Let this not be made a part of the foundation of proposed venture.

Export Commitment

3.71 Regarding the fear that the proposed foreign collaboration would really serve the purpose of obtaining an advantage over the competitors of Anil in the domesti market rather than helping the country to make a technological break-through and obtain a footchold in the international market, this fear can only be dispelled if it is decided that it will be essentially an export oriented unit From the data that have been supplied to us by Anil (see paragraphs 3.63 and 3.64 above and also appendix H) it appears to us that if the expectations underlying the present calculations materialise, the proposed unit should have a reasonably good opportunity of building an export base for serving the markets in West Asia and South Asia. On the one hand, National Starch has no subsidiary or associate company in this part of the world except in Japan. As it has got a good name in the world market and with its well developed technology for the production of various special starches, National Starch should be able to help the joint venture to find outlets for its products in the growing industries in West and South Asia. With India's good trade relations in Western Europe, those markets should also be available to the proposed venture. With various regions in India providing a suitable environment for the production of maize varieties (see further below), India should provide a good base for the production of special starches based on maize as a raw material. The cost analysis provided by Anil suggests that, in the production of proceedsed starch and even in the production of special starches the cost lof the basic raw material constitutes quite a substantial proportion. If the costs and prices remain in approximately the same relationship it should be possible for India to export with profit to markets in nearby countries. As mentioned earlier, an export, oriented unit usually implies a commitment to export 60 per cent of the output. The Commission however realises that such a large commitment may not be practicable in this particular case. It is therefore suggested that the proposed unit should be obliged to export 40 per cent of its output. This would still make the venture worthwhile from the point of view of public interest. Such an export commitment should also dispel the fear of the existing producers in the industry that the proposal would mainly serve not public interest but the interest of Anil to establish a stronger monopoly hold over the domestic market.

Cultivation of special Maize Varieties

3.72 The applicant company has suggested that one of the of advantages flowing from the proposed collaboration arrangement would be that the cultivation of high amylose and waxy maizes will be established in the country. These maizes have been devoloped spaially for the purpose of providing raw material for the starch industry. Waxy maize contains 100 per cent amylopectin. Amylo-maize is the term used to described maize which has amylose content above 50 per cent and can be adapted agronomically to commercial production. These varieties have been specially developed for indutrial purposes and cannot be used as food either by animals or by human beings. The applicant cospany has pointed out that the proposed venture will introduce cultivation of these special maize varieties in India with the know-how and the seeds to be provided by the Collaborators. "These hybrid varieties of maize will be grown in Sabarkanta, Banaskantha and Panchmahal of

Gujarat State, where traditional maize is grown and the climate and soil are suitable for such cultivation." Thus a new addition will be made to agricultural cropping and this new commercial crop will be introduced in backward areas inhabited by scheduled tribes especially adivasis. On this basis, it is claimed, people from these backward areas would be provided with gainful occupation to increase their income and standard of living. It is also possible that if these maize can be properly grown, export of such maize itself may be possible for feeding the starch industries in countries like England ane Japan. It was claimed that this may be specially possible in the case of associated companies of National Starch located in these Countries.

3.73 The company was specifically asked, whether the idea was that they would undertake to organise a plantation or in any other way directly participate in the cultivation of the new maize varieties. The answer was clear—that there was no intention to acquire land or develop a company plantation. "The cultivation programme will be carried out through the existing farmers and cooperatives on contract basis. The new undertaking will, however, provide facilities such as seeds, fertilizers, technical supervision, etc. for implementing its maize cultivation programme. It will also encourage demonstration farms in the prospective areas." The applicant company was further asked whether, in view of the maize shortage that the company had faced in the past from time to time, any efforts have been made to ensure a secure supply of this raw material. The company's reply was that the maize starch industry as a whole had made such efforts and advances had been given to maize cultivators for the use of improved seeds and fertilizers etc. It was expected that, in return maize at fixed prices would be made available to the industry. This did not materialise in practice and some loss was incurred. As a matter of fact, till recently, there have been various restrictions regarding the use of local maize by the maize starch industry and this has been one of the reasons responsible for inadequate utilisation of capacity.

3·74 The commission enquired from the Indian Agricultural Research Institute about the prospects of developing the production of these maize varieties in India. The Commission was informed that, as the only outlet for such maize is its use in the Industry, it has not yet been grown in India "primarily due to lack of demand". In future it will have to be grown under-contract. The maize varieties concerned "can be conveniently developed in the country. Adequate know-how for their development and cultivation is available." Appropriate breeding programmes into locally adapted varieties can be introduced. This may be better because there is little guarantee that directly introduced varieties will definitely do well in Indian conditions. While these maizes can be grown farmers who have familiarity with maize cultivation, the yield levels of introduced varieties cannot be predicted from the performance levels reported from the United States and other countries. These varieties can be successully grown in any part of the country where maize is presently grown but better yields can be realised in the States of Tamil Nadu, Karnataka, Bihar, (Particularly in *rabi*) Gujarat and Maharashtra which have a mild climate.

3·75 Some discussion at the Public hearing brought out a few other important points. Firstly, if these special varieties are to be maintained in their pure form, their cultivation will have to be separated from that of other varieties of maize. A mixture of breeds may easily lead to the loss of the special qualities. There have also to be special arrangements for the continuous cultivation of seed. While the applicant company is not thinking in terms of a plantation, cultivation of such new varieties can only be undertaken under contract and specific inducements and guarantee about prices. The applicant company also admitted that the introduction of the new varieties may as well be undertaken directly be agricultural Departments; the know-how about it and the availability of seeds are not confined to National Starch. The proposed venture and any other starch manufacturers who are interested may thus sponsor the cultivation of the maize varieties through the Central or State agricultural authorities. It does not seem to us that there is any special advantage that can be obtained in this respect only through the proposed foreign collaboration. Whether these particular varieties will actually be cultivated in particular districts such as the backward districts inhabitated by Adivasis is quite uncertain at the present stage of discussion. No credit therefore can be given to the proposal on this count.

The production of Necessary Chemicals

3·76 One aspect of the proposal is that certain chemicals will have to be imported as raw material for the special starches. At one stage of the discussion regarding the proposal, the applicant company suggested that, while it will import these chemicals during the first three years of the operation of the Joint Venture, production facilities for these chemicals will be established as a part of the collaboration arrangement with National Starch. The collaborators would provide the technical know-how without any additional fees. It was pointed out that the quantity of this chemical required was quite small--30 tonnes—and that it may be uneconomical to set up a plant for the production of this chemical, unless it has other industrial uses too. The company admitted that production facilities can only be established when the demand would be sufficient to warrant the setting up of a production unit. As no information regarding the economic size of its manufacture and other sources or demand for it is available to the Commission, we think it premature to take into account this possibility. While the collaboration arrangement may provide for the transfer of this know-how as and when necessary, we do not think that any credit should be taken for this possibility in the consideration of the proposal at this stage. In the Commission's own analysis of foreign exchange inflow and out-flow it has been assumed that the chemicals will be imported throughout the period of five years from the commencement of operation.

How to ensure net benefit

3·77 Our analysis of the proposal thus indicates that the proposal may be of significant benefit and would be worth supporting only if it is an export oriented one and at least an export of 40 per cent of its output can be ensured. As explained earlier, the possible benefit from such exports is very much dependent on the exports being made at suitable prices and the cost and price relationship not going too far out of line with what is projected at present. To ensure that national interests are not jeopardised, we have suggested that, in line with 40 per cent equity permitted to National Starch, the foreign collaborators' representation on the Board of Directors should also be proportionate to this equity. Exploration of international markets and ensuring the increasing export would however depend entirely upon National Starch. To make sure that they have an inducement to develop exports from the proposed venture, it is necessary that the dividends paid to them should be limited to the profits arising from the exports made by the joint Venture. As it is, the profitability of the proposed venture would be quite high. On an investment of Rs. 12 lakhs to be made by the foreign collaborator, accrual of profit in the first five years would be Rs. 14.3 lakhs. The country need not mind such high profitability even from the initial period of the proposed venture if the profits from exports are such as to enable the country to make a large payment to the foreign shareholder. It is necessary for this purpose to calculate the profit made from exports by taking into account the net realisation from export sales (*i.e.* after deducting the sales commission paid to National starch on exports) and deducting from it the direct costs of exported output, adding 10 per cent for other charges. Alternatively, the amount to be ddeucted may include all raw material costs plus 20 per cent to cover other costs including labour. The profit from exports calculated on such a basis could be put in a kind of foreign dividend equalisation fund from which dividends to the foreign shareholders may be paid. The main emphasis should be that the foreign shareholders would obtain dividends only to the extent that profits from exports calculated on such a basis would enable the proposed venture and the country, to pay.

3·78 Squarely putting the responsibility for ensuring substantial exports from the proposed venture on the foreign collaborator appears to be essential in view of the fact that, in the proposed terms of collaboration, the position regarding the export potentialities of the joint Venture has been left somewhat vague. It has been clearly stated that the joint Venture is not to sell speciality starch products out of India "in any place or country where National Starch, its subsidiaries or affiliates are manufacturing or in future will be manufacturing speciality starch products, or where National Starch has in the past granted exclusive licences." This provision does not preclude National Starch in future from setting up subsidiaries or affiliates in West Asia, South East Asia or even in South Asia, and if this happens the markets of those countries would be closed to the Indian Joint Venture. While the Commission was given to understand that the idea is that the Joint Venture in India will be used as the basis for supplying markets in West Asia, Africa, and the Far East, there is no clear undertaking on the part of National Starch that this will be done. The provision we are suggesting, *viz.*, that payment of dividend to National Starch will be dependent upon the profits from the exports of the Joint Venture will squarely place on National Starch the responsibility of ensuring profitable exports.

3·79 It may be added that we understand that, in case this proposal is approved, other starch manufacturers would also seek foreign collaboration. Some of them, who are in a dominant position in the Starch industry, are similarly placed. We assume that the Government will consider the analysis made by us of the project as well as the suggestions regarding the conditions to be attached etc. when examining such cases also.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

Under section 22(3)(a) of the MRTP Act the applicant has to satisfy the Government that "the proposal to establish a new undertaking or the scheme of finance with regard to such proposal is not likely to lead to the concentration of economic power to the common detriment or is not likely to be prejudicial to the public interest in any other manner". It is also necessary that the Central Government should be satisfied that "it is expedient in the public interest" to accord approval to the proposal. The Act also lays down that the Government and the Commission are to take into account' all matters which appear in the particular circumstances to be relevant" and, in particular, the considerations laid down under section 28 of the Act. The Commission's function is to make an enquiry into various aspects of the proposal and make its analysis and recommendations available to Government.

4·2 Our analysis of the proposal indicates that, the proposal to establish the Joint Venture on the basis of the equity participation by Anil, National Starch of USA and public financial institutions may not necessarily lead to the concentration of economic power to the common detriment, in the sense of what the Monopolies Inquiry Commission has called "country monopoly", the addition of the capital assets involved to the total assets controlled by the Large House of Kasturbhai Lalbhai will not make such a substantive addition to the economic power of the House in this particular sense as to make the concentration one which will affect common detriment adversely. On the other hand, there is no doubt that, with Anil already being a dominant undertaking in the manufacture of processed starches, the proposed setting up of another associate undertaking in the starch field with the various advantages that it will have is not merely likely to perpetuate the economic power that Anil enjoys in the same product market but also substantially increase such economic power. This is likely to affect the other producers of starch, especially the smaller starch producing units, as well as the consumers adversely in that with its increased dominance, Anil may well be in a position to exploit its monopolistic position more effectively.

4.3 It will also be seen that, from our analysis regarding demand for the proposed products it does not appear that the taking up of the new line of production is urgently necessary for meeting priority requirements of the home market or defence. While the proposal would introduce some new technology and thus help the expansion of existing markets and, through introduction of new varieties, of starches, open up new markets for starches, it is not improbable that the implementation of the proposal would not only encourage new enterprises as a countervailing force to dominant undertakings like Anil but even make the position of the existing non-dominant enterprises difficult. The import of technology through the proposed foreign collaboration may also adversely affect the growth of indigenous technology if the manufacturers who are basing their operations only on indigenous technology are adversely affected as a result of competition from the proposed venture with its foreign technology and know-how. If the proposal is permitted on the lines suggested by the applicant company, not only would the foreign collaborator obtain a very high return on his equity capital but, as indicated by the Commission's analysis, would not provide any substantial benefit to the country to compensate for such large scale drain by way of profits. Taking all these factors into consideration, it is quite clear that the proposal as it stands is likely to be prejudicial to the public interest.

4.4 There are however certain potential advantages in the proposal which could counterbalance many disadvantages if the proposal is modified in certain important respects. In case the proposal can be made essentially an export oriented one, it would not only reduce the fears that the smaller competitors legitimately feel, but also enable the proposed venture to organise the production of speciality starches on an efficient and economic basis so as to best meet the requirements of overseas markets in regions like West Asia, South Asia and South East Asia. Reserving a substantial part of the output, at least 40 per cent as suggested by the Commission, for exports would ensure that the other especially smaller manufacturers need not be too much afraid to the output of the proposed venture making things very difficult for them. Such a modification would also ensure that technological improvements that would be brought about in the starch industry as a result of the proposed venture would not be too costly to the country in terms of foreign exchange. But, as we have pointed out earlier, to make sure that the magnitude of exports which we considered necessary to justify the proposal are actually achieved and the benefits expected from such exports in reality accrue, certain modifications have to be made in the applicant's proposal. These relate to the composition of the Board of Directors, the proposal to appoint the proposed venture as a sales agent for Anil, and limitation of the payment of dividends only from the profits made from the exports of speciality starches. With these modifications to the proposal made by the applicant company, it is the Commission's view that, on balance, the proposal would become one the approval of which would be expedient in the public interest.

4·5 The Commission therefore **recommends** that the proposal may be approved only if it can be modified in the following ways :

1. The Joint Venture would export at least 40 per cent of its output.
2. The Articles of Association of the proposed company are so formulated as to provide for proportional representation of the different shareholders on the Board of Directors so that Anil Starch, National Starch and public financial institutions will have representation in the same proportion as their equity holding, viz. 40 : 40 : 20; and further, if the two Managing Directors are to be appointed by Anil and National Starch respectively, the Chairman will be nominated by the financial institutions.
3. The marketing in India of the products to be produced by the Joint Venture will not involve the use of any trade name or brand name used by National Starch.
4. The collaboration agreement will not lay down anything about the Joint Venture acting as the sales agent for the products of Anil. This matter may be negotiated between the two companies after the proposed venture is organised and subject to the usual Government approvals.
5. In the proposed company, a foreign dividend reserve fund would be created and dividends to the foreign shareholders will only be paid from out of this reserve. The amount to be allotted to this reserve may be worked out as follows. From the net realisation arising out of export sales an amount calculated on one of the following two bases will be deducted :
   (a) The direct costs incurred for producing the exported quantities plus 10 per cent to cover other costs, or
   (b) Raw material costs for the production of the exported quantity plus 20 per cent to cover other costs including labour.

The balance arising after deducting the costs as per (a) or (b) above out of the net realisation arising from export sales shall be called "export profit" and credited to the account of the foreign dividend reserve fund. All dividends on foreign equity will be paid only out of this fund cumulatively, so that any dividend not paid in any year or years in which there is no credit balance in the fund will be paid in subsequent year or years but only out of the credit balances in the fund.

NEW DELHI,
the 23*rd March*, 1974.

(Sd/.)
(JUSTICE J.L. NAIN)
Chairman

(Sd/.)
(H.K. PARANJAPE)
Member

No. 1(40)-Enq./73

ANIL STARCH PRODUCTS LTD., AHMEDABAD

APPENDIX 'A'

Copy of the Commission's Order dated 7-12-1973

Order under Section 30(2) of the Monopolies and Restrictive Trade Practices Act, 1969 in the case of M/s. Anil Starch Products Limited, Ahmedabad.

The application under section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, dated the 28th September, 1972, submitted to the Department of Company Affairs by M/s. Anil Starch Products Ltd., Ahmedabad was referred by the said Department to the Monopolies and Restrictive Trade Practices Commission *vide* its letter No. 2/10/72-M. III dated the 18th September, 1973, for enquiry and report. The Government's letter making the reference was received in the Commission's office on 19th September, 1973. As per provisions of section 30(2) of the Monopolies and Restrictive Trade Practices Act, 1969, the last date for sending the report to the Government in this reference is to expire on the 17th December, 1973.

For the reasons mentioned below, it is not possible to send the report by this date :—

1. The applicant company's reply to the various queries made by the Commission has been found to be wanting in certain respects. Hence, a letter dated 6th December, 1973 has been issued to the company asking to furnish information on some more points. Reply to this letter is due by the last week of this month.
2. The replies to the Commission's letters from some of the Government Departments are still awaited.
3. The Commission has addressed some letters concerning this enquiry to few other parties including some research laboratories etc. and the reply to these letters has not been received so far.
4. After all the enquiries have been completed, it will take some time to consolidate the information collected and fix a public hearing.

In view of the above, and in exercise of the powers conferred on the Commission under section 30(2) of the Monopolies and Restrictive Trade Practices Act, 1969, the last date for the submission of the report to the Government in this enquiry is extended to 28th February, 1974.

(Sd.)
(JUSTICE J.L. NAIN)
Chairman

(Sd.)
(H.K. PARANJAPE)
Member

सत्यमेव जयते

NEW DELHI,
Dated : 7th December, 1973.

No: 1(40)-Enq./73

ANIL STARCH PRODUCTS LTD., AHMEDABAD

APPENDIX 'A-1'

Copy of the Commission's Order dated 4-2-1974.

Order under Section 30(2) of the Monopolies & Restrictive Trade Practices Act, 1969 in the Case of M/s. Anil Starch Products Ltd., Ahmedabad.

The last date for the submission of the Commission's report to the Government of India, Department of Company Affairs was extended to 28th February, 1974 *vide* this Commission's Order of even number dated the 7th December, 1973.

The Commission had fixed the public hearing regarding this reference on 31st January, 1974. However, before this date i.e. on 18th January, 1974 a hearing was given by the Commission to M/s. Maize Products (a division of Sayaji Mills Ltd.) Ahmedabad for their application dated the 20th December, 1973. On this date M/s. Lakmi Starch Ltd., Bombay another starch manufacturer, also made oral request to the Commission for hearing. The contentions of these two starch manufacturers related to inspection and copies of certain documents etc., relevant to the application of M/s. Anil Starch Products Ltd. The hearing on these two requests was finally concluded on Ist February, 1974.

In view of the above, the public hearing fixed for 31st January, 1974 had to be cancelled. The next public hearing is proposed to be fixed in the last week of this month.

In view of the above, it will not be possible for the Commission to send its report to the Government by the extended date i.e. 28th February, 1974.

In exercise of the powers conferred on the Commission under section 30(2) of the Monopolies and Restrictive Trade Practices Act, 1969, the last date for submitting the report to the Government in the case of M/s. Anil Starch Products Ltd., is further extended to 31st March, 1974.

(Sd.)
(JUSTICE J.L. NAIN)
Chairman

NEW DELHI,
Dated: the 4th Feb. 1974.

(Sd.)
(H.K. PARANJAPE)
Member

ANIL STARCH PRODUCTS LIMITED—AHMEDABAD

APPENDIX 'B'

Names and addresses of the Objectors.

1. M/s. Maize Products Ltd.,
11, Bruce Street,
Fort, Bombay-1.

2. M/s. Laxmi Starch Products,
Das Chambers,
Dalal Street,
Fort, Bombay-1.

3. M/s. R.K. Chemical Industries Pvt. Ltd.,
142/1, Radha Bazar Street,
Calcutta-1.

4. N.U. Patel & Co.,
18/D, Dr. Rajendra Road,
Calcutta-20.

5. Shri S. Krishnaswamy,
Director,
Formalin & Fine Chemicals Ltd.,
3-6-702, Himayath Nagar,
Hyderabad-500029.

6. Shri V. Nagamanickam,
No. 9, Muniyappan Koil Street,
Gugai,
Salem-636006 (Tamil Nadu).

7. M/s. Poly Enterprises Pvt. Ltd.,
M.A. Building,
Dr. Motibai Road,
Ahmedabad-2.

8. Special Secretary to the
Government of Kerala,
Industries (H) Department,
Trivandrum.

ANIL STARCH PRODUCTS LTD.

APPENDIX 'C'

Copy of application dated the 20th December, 1973 *filed by M/s. Maize Products Ahmedabad* (*A division of Sayajee Mills Ltd.*)

Before the Monopolies and Restrictive Trade Practices Commission.

M/s. Maize Products, having their registered office at Kathwada, Ahmedabad ......**Applicants**

In respect of application under section 22 of the Monopolies and Restrictive Trade Practices Act from M/s. Anil Starch Products Limited., Ahmedabad, for establishment of a new undertaking for manufacture of "Speciality Starch" Products.

In the above matter, the Monopolies and Restrictive Trade Practices Commission was pleased to issue to us a questionnaire calling upon applicants to furnish certain information. Thereafter the applicants also received various letters from the Honourable Commission calling upon them to furnish additional information. That the applicants have frankly and faithfully furnished all the necessary information.

The Commission is also visiting Ahmedabad to visit the factory of the applicants in the last week of this month and informal discussions will also take place between the Commission and the applicants.

The applicants have objected to the said application of M/s. Anil Starch Products Limited from the very beginning, on various substantial grounds.

That from the very beginning, even before the hearing before the Department of Company Affairs, Government of India, the applicants have been demanding certain information which is in exclusive possession of Messrs. Anil Starch Products Limited. That the Department of Company Affairs, Government of India failed to furnish us the said information.

That since the Commission has issued to us a questionnaire, in similar form the Commission must have also issued questionnaires not only to Messrs. Anil Starch Products Limited, but also to various other parties and the replies to the said questionnaires must have been duly received. It is submitted that under the scheme of the Monopolies and Restrictive Trade Practices Act, it is for the applicants to initially produce evidence and establish the following as required under the provisions of the Monopolies and Restrictive Trade Practices Act :—

(a) That the proposal for the new undertaking is not likely to lead to the concentration of economic power to the common detriment.

(b) That the proposal is not likely to be prejudicial to the public interest in any other manner.

(c) That the proposal is such that it is expedient and in the public interest to accord approval to the proposal.

That from the provisions of the above, it is clear that the Act proceeds with the presumption that the proposal is likely to lead to the concentration of economic power to the common detriment and the proposal is likely to be prejudicial to the public interest. Since in its initial presumption, the proposal is likely to lead to the common detriment and public prejudice, the initial function of objectors like the present applicants is to refute any evidence that may be produced by M/s. Anil Starch Products Limited. It is only when the stage of such *refutal* is over that it is necessary for the applicants to produce positive evidence why the proposal should not be granted.

In view of the aforesaid scheme of the Act and since the enquiry before the Commission is a quasi-judicial enquiry, it is absolutely essential to meet the ends of justice, that the entire evidence produced by M/s. Anil Starch Products in support of their application must be made available to the applicants because it is only then that the applicants can properly show cause That the opportunity to show cause granted to the applicant becomes illusory and mere formality unless all the evidence—documentary, oral or otherwise—produced by M/s. Anil Starch Products Limited are made available to the applicants. It may be clearly stated at this stage that the applicants are not interested in any secret technical processes nor are they interested in a fishing enquiry; but it is essential that the applicants must be supplied with all the information relied upon by M/s. Anil Starch Products Ltd. in support of their application.

The main contentifon othe applicants against proposal is that the Indian industry is sufficiently competent to make all these "Starch Specialities" which are required in India. Further, the Indian research in the "Starch Specialities" in India is in advanced stage. Thirdly, there is no demand in India for "Starch Specialities" sought to be manufactured by M/s. Anil Starch Products Ltd. That the "Speciality Starches" are not being manufactured in India not because there is no competent know-how in the country but because there is no effective demand for such "Speciality Starches" taking into account the stage of Indian Technology in various industries like textile, paper, food products, etc. As the demand develops, the Indian industry can equally rise to the occasion and meet it.

It is further the case of the applicants that the products sought to be manufactured in India under the said proposal are merely sales gimmicks and no new technology is involved, and what is being put before the Commission as new products are in reality brand-names.

It is further the case of the applicants that there is no export potential for "Starch Specialities". That it is also the case of the applicants that granting collaboration between M/s. Anil Starch Products Limited., Ahmedabad, India and M/s. National Starch Corporation of U.S.A. would be detrimental to the Indian interest, because National Starch Corporation, is an international giant and they will get dovetailed with an Indian Monopoly House, and this is likely to affect national interest.

It is further pointed out by the applicants that the sole object of the collaboration is to exploit the name of an international monopoly for the purpose of capturing the entire starch market in India thereby ruining the growth and development of indigenous starch manufacturers and that at the present juncture no foreign collaboration of whatever kind is necessary.

That it is also the case of the applicants that even in the context of Indian planning, Starch industry has received a low priority. The applicants have not only opposed the proposal on the aforesaid grounds but also raised several important and substantial additional objections which they have duly substantiated before the Department of Company Affairs, Government of India and also in reply to the Honourable Commission's questionnaire.

Unless the applicants are furnished with all the requisite information supplied by M/s. Anil Starch Products to meet the aforesaid objections and unless the applicants are furnished with all the evidence in support of their contentions, it is not possible for the applicants to sufficiently show cause and satisfy the Commission that the proposal of M/s. Anil Starch Products should not be granted. In the aforesaid circumstances, the applicants submit that it is in the interest of justice that all the evidence produced by M/s. Anil Starch Products Ltd., before the Department of Company Affairs, Government of India, before the Ministry of Industrial Development, Government of India, and before this Honourable Commission be allowed to be inspected by the applicants and also the applicants be allowed to take copies thereof and the applicants be further permitted to reply after the inspection and copies of the said evidence supplied by M/s. Anil Starch Products Ltd., are taken. It is very humbly submitted that unless the applicants are given the necessary inspection and furnished with necessary copies, the proceedings before the Monopolies and Restrictive Trade Practices Commission, would be onesided and the applicants would be merely rebutting claims and justifications which may not have been made, unless we know the other party's case fully, therefore, as stated above in view of the aforesaid presumption and in view of the nature of the enquiry, the evidence may be furnished to the applicants and it should be left to the applicants to decide which point it finds necessary to oppose and which point they do not think necessary to oppose.

Applicants submit that what evidence the applicants consider necessary for the purpose of showing cause can only be decided by the applicants, and it is submitted that it should not be left to M/s. Anil Starch Products Limited nor can it be left only to the Honourable Commission. The applicants have been in the industry for a long time. They have the necessary competent technical staff who can examine the case of M/s. Anil Starch Products Ltd., and give proper reply to it. It is once again humbly submitted that this Honourable Commission cannot undertake this task which is highly technical, even though the applicants have the highest regard and respect for the Commission and its competent officers.

In the aforesaid circumstances, without prejudice to the above, it is humbly submitted that the necessary evidence should be furnished to the applicants, as produced by M/s. Anil Starch Products Limited., (particularly since we do not want to be informed about any technical and secret process) and all that we ask for is any claims and justifications made by M/s. Anil Starch Products Limited for proving that :—

(a) there will be no concentration of economic power,

(b) that the articles sought to be made with foreign collaboration are being imported in substantial quantities,

(c) that the foreign exchange loss involved in their foreign collaboration scheme (including foreign equity participation) is worth incurring because of the very high priority nature of the articles proposed to be made, and

(d) lastly that Indian research available with us and with the National Laboratories are unequal to the task of giving the necessary know-how to disprove the objections elaborately laid down in the applicants' reply to this Honourable Commission's questionnaire, at the earliest convenience of this Honourable Commission.

Without prejudice to the aforesaid, the applicants further pray that the following documents be furnished to the applicants :—

(1) Application of M/s. Anil Starch Products Limited under section 22 of the Monopolies & Restrictive Trade Practices Act with full details.

(2) Further particulars, if any, called for from M/s. Anil Starch Products Limited by the Central Government depts and the Monopolies Commission from time to time and the details itself. The copies of the replies received from M/s. Anil Starch Products Limited, for each of such letters from the Deptts. of Government of India and the Commission.

(3) Copies of agreement, if any, between M/s. Anil Starch Products Ltd. and M/s. National Starch.

(4) Name and description of application of "Speciality Starches" sought to be manufactured in India by M/s. Anil Starch Products Ltd., under the proposal.

(5) Particulars, if any, called for from M/s. Anil Starch Products Limited and other organisations by this Honourable Commission and replies received thereto.

(6) Copy of the questionnaire issued by this Honourable Commission to M/s. Anil Starch Products and replies received from M/s. Anil Starch Products with full annexures and details.

(7) Copies of questionnaires issued by this Honourable Commission to various parties, including research institutions and Government departments and the replies received by this Honourable Commission.

(8) (a) Latest figures regarding monopolistic position of Kasturbhai Lalbhai Group in the Indian Industry and also in the Starch industry.

(b) Figures relating to production and sales showing the extent of monopolistic position of M/s. National Starch Chemical Corporation in the world trade.

(9) Evidence produced by M/s. Anil Starch to prove that foreign collaboration is necessary to develop "Speciality Starches" in our country.

(10) Any evidence produced by M/s. Anil Starch Products to show that the new proposed undertaking should be sole selling agents for M/s. Anil Starch Products and why they should be given selling commission at the rate of 2½%.

(11) Any evidence produced by M/s. Anil Starch Products to show that the proposed industrial undertaking should be appointed as Anil Starch's exclusive sales agents as proposed in the application.

(12) Copy of any demand survey made by M/s. Anil Starch Products, including the methodology of survey and the statistical principles employed by the same.

(13) Any evidence produced by M/s. Anil Starch Products to show that the technology in the manufacture of "Speciality Starches" is not within the competence of the Indian indigenous technology existing in the private starch industry and in National Laboratories and CSIR associated laboratories.

(14) Any evidence produced by M/s. Anil Starch Products to show how many starches out of the list of 300 products sought to be manufactured in India without foreign financial or technical help.

(15) Any evidence to show that M/s. Anil Starch have got any commercially viable chemical method to separate Amylose fraction from the Amylo-Pectine fraction.

(16) Out of the number of numerous "Speciality Starches" how many "Speciality Starches" M/s. Anil Starch Products Ltd., propose to manufacture and market and their future projections with reference to every "Speciality Starch".

(17) Any evidence produced by M/s. Anil Starch Products to disprove the applicants' claim that they are competent enough to produce any "Speciality Starches" for which there is a demand.

(18) Any evidence relied upon by M/s. Anil Starch Products to show that technical and financial collaboration with foreign company is necessary.

(19) Any evidence produced by M/s. Anil Starch Products to show that there is potential for import substitution and export.

(20) Any evidence relied upon by M/s. Anil Starch Products in support of their application.

(21) Details of the application, if any, made by M/s. Anil Starch Products to the Government of India for heavy subsidy.

It is submitted that before this application is finally disposed of and in the event of the Honourable Commission not inclined to give inspection and copies as prayed above, the applicants should be given an opportunity to explain their case personally. Since the Honourable Commission is arriving in Ahmedabad in the last week of December, it is prayed that the inspection of the copies be furnished before the said date.

For this act of kindness, the applicants shall ever be so grateful.

FOR MAIZE PRODUCTS
(Sd.)
GENERAL MANAGER

ANIL STARCH PRODUCTS LTD., AHMEDABAD

APPENDIX 'D'

Copy of the application dated the 23rd January, 1974 filed by M/s. Laxmi Starch Ltd., Bombay

Before the Monopolies and Restrictive Trade Practices Commission.

IN THE MATTER OF
Messrs. Anil Starch Products Limited.,
Anil Road, Ahmedabad

AND

IN THE MATTER OF
An Enquiry under section 22(3)(b) of the M.R.T.P. Act. Reference No. 1(40)-Enq./73

AND

IN THE MATTER OF
Messrs. Laxmi Starch Limited, a Public Limited Company, registered
under Companies Act, 1956, and having its office at 25, Dalal Street,
Fort, Bombay.

..........OBJECTOR/APPLICANT

सत्यमेव जयते

Application for Disclosure of Certain Documents

The Anil Starch Products Limited, Ahmedabad (hereinafter called as 'Anil Starch') has filed an application on the 2nd October, 1972, under section 22 of the M.R.T.P. Act, for establishment of a new undertaking in the form of a Private Limited company at Ahmedabad for manufacture of 12,000 Metric Tonnes of Speciality Starch Products. The broad details regarding the applicant company and its proposal have been stated in the Notification dated the 24 th September, 1973, published in the Times of India, Bombay, on 30th September, 1973.

2. The facts of the case have been set out in the objections dated 10-10-1973 filed by the Applicant before this Hon'ble Court on 20th October, 1973. The Applicant craves leave to refer to and rely on the said objections as if the same formed part of this application.

3. The Applicant is not aware of the details of the application made by Anil Starch nor the details of the agreement relating to the foreign collaboration. Various informations contemplated under rule 6 (form 2) are also not known to the Applicant.

4. In order that the Applicant can effectively participate in the above enquiry and assist the Hon'ble Commission to come to a proper conclusion in the present enquiry it is necessary that the Hon'ble Commission directs Anil Starch to disclose the documents mentioned in the schedule annexed hereto. Unless this Hon'ble Commission passes such an order Anil Starch can rely on wrong and insufficient evidence in order to pursuade this Hon'ble Commission to come to a particular conclusion. The Applicant can assist the Hon'ble Commission in pointing out if Messrs. Anil Starch have furnished any wrong or insufficient evidence only if the same is disclosed to the Applicant. Information is otherwise also necessary for the Application to support its case that sanction under section 22 ought not to be given to the said proposal of Anil Starch Products Limited.

5. The Applicant submits that the principles of natural justice, fairplay and equity require that this Commission is pleased to direct Anil Starch to disclose the documents mentioned in the schedule annexed thereto.

6. It is, therefore, most respectfully prayed that this Hon'ble Commission may be pleased—

(i) to direct Messrs. Anil Starch to disclose the documents in the schedule hereto; and

(ii) to pass such other orders or directions as may be necessary and proper in the circumstances of the case.

Drawn & filed by
BHANDARE PAREKH & CO
Advocates

NEW DELHI,
Dated 23-1-1974.

SCHEDULE

1. Collaboration Agreement between Messrs. Anil Starch and Messrs. National Starch.
2. Application of Messrs. Anil Products Limited under section 22 of the Act together with its enclosures.
3. Commission questionnaire to Messrs. Anil Starch and reply thereto by Messrs. Anil Starch.
4. Details of Speciality Starches with their composition.
5. Minutes of C.S.I.R. along with the report of the Research Institute.

ANIL STARCH PRODUCTS LTD., AHMEDABAD

APPENDIX 'E'

Before the Monopolies and Restrictive Trade Practices Commission

IN THE MATTER OF

M/s. Anil Starch Products Ltd., Anil Road, Ahmedabad

AND IN THE MATTER OF

An enquiry under section 22(3)(b) of the MRTP Act—Reference No. 1(40)-Enq./73.

AND IN THE MATTER OF

An application filed by M/s. Maize Products, Kathwada, Ahmedabad, dated 20th December, 1973, requesting for copies and inspection of various documents and papers referred to in the application.

An application filed by M/s. Laxmi Starch Ltd., for disclosure of certain documents.

1. Mr. B.A. Desai and Mr. Shanti Swarup Bhatnagar	for M/s. Maize products.
2. Mr. M.C. Bhandare with Mrs. S.M. Bhandare and Mr. P.H. Parekar	for M/s. Laxmi Starch Ltd.
3. Dr. L.M. Singhvi with Mr. Ravindar Narain and Mr. Shailendra Sarup	for M/s. Anil Starch Products Ltd.

ORDER

These are two applications—one by M/s. Maize Products, Ahmedabad, and the other by M/s. Laxmi Starch Limited, Bombay (hereinafter referred to as "the Opponents") praying that certain documents be furnished to them either by M/s. Anil Starch Products Ltd., (hereinafter referred to as the Applicants) or by the Commission. M/s. Maize Products have asked for disclosure of about 21 items. Some of these items are again groups of documents and the others are requisitions for information collected by the Commission from the Applicants, Central Government Departments, Research Institutions and other persons. . Maize Products have also applied for disclosure of evidence if any, produced by the Applicants in support of their application and market surveys conducted by them or on their behalf, the methodology of such surveys and statistical principles employed in such surveys etc. M/s. Laxmi Starch have applied for disclosure only of the application filed by the Applicants under section 22 of the Act, collaboration agreement between them and National Starch of U.S.A., questionnaire sent by the Commission to Applicants and replies thereto, details of speciality Starches proposed to be manufactured by the Applicants, the composition of such starches and minutes of the Council of Scientific and Industrial Research along with report of that body.

The Applicants are manufacturers of starch products from maize in a large way of business in India and are based in Ahmedabad. Their application is for permission to establish a new undertaking owned by a proposed company wherein they will own 40 per cent of the share capital, National Starch & Chemical Corporation of U.S.A., will own another 40 per cent of the capital and remaining 20 per cent will be taken up by others. The proposed company will manufacture 12000 metric tonnes per annum of speciality starch products with the technology supplied by National Starch. The two opponents are the business rivals of the Applicants though Laxmi Starch is in a small way of business

The contention of the Opponents is that the enquiry before the Commission is a judicial enquiry and it is therefore essential in order to meet the ends of justice that the entire evidence produced by the applicants in support of the application be made available to those who oppose the application to enable them to "Show cause". It is contended that the opportunity to "show cause" becomes illusory and a mere formality unless all the evidence and information, whether oral or documentary, is made available to the Opponents. It is further contended that unless the Opponents are furnished with all the information in support of the application it is not possible for them sufficiently to "show cause" and satisfy the Commission that the proposal of the Applicants should not be granted. On behalf of M/s. Laxmi Starch Ltd., Mr. Bhandare contended that in order effectively to oppose the proposal of the Applicants his clients should at least be furnished 5 documents covered by his application and if on the application of Maize Products discovery of other documents is orders his clients be also given the benefit of such discovery.

The Applicants oppose the application of the Opponents for discovery and inspection *inter alia* on the ground that they have no *locus standi* or right to inspect or obtain inspection of documents. They have no right to "Show Cause." They are business rivals, Maize Products have themselves applied for a similar licence. That the intention of the Opponents is to secure confidential information furnished by the Applicants for ulterior use. That such information cannot be furnished to the Opponents by virture of the provisions of the Monopolies and Restrictive Trade Practices Act.

As this is the first application of its kind during the existence of this Commission in respect of applications under Chapter III for prevention of concentration of economic power, we have given full hearing to the parties. Such hearing lasted for about 20 hours. We have given careful consideration to the rival contentions of the parties. We shall now proceed to deal with them.

At the outset it will be useful to discuss some of the relevent provisions of the law. The Act was passed to give effect to the directive principles of the Constitution enshrined in Articles 38 and 39 so that social and economic justice may be done and to secure that the operation of economic system does not result in the concentration of wealth and means of production to the common detriment. The preamble to the Monopolies and Restrictive Tradde Practices Act also states that the Act is intended to secure that the operation of the economic system does not result in concentration of economic power to the common detriment. Chapter III with which we are concerned in this matter pertains to the prevention of concentration of economic power. Section 20 defines large and dominant undertakings to which the said Chapter applies. Section 21 to 23 provide that any such undertaking wishing to expand, establish a new undertaking or proposing to merge in or amalgamate with any other undertaking shall apply to the Central Government for permission. The Applicants have applied to the Central Government under section 22 for permission to establish a new undertaking. Section 22 provides that on receiving such application the Central Government may call upon the Applicant to satisfy the Central Government that the proposal to establish a new undertaking or the scheme of finance with regard to such proposal is not likely to lead to concentration of economic power to the common detriment or is not likely to be prejudicial to the public interest in any other manner and thereupon the Central Government may if it is satisfied that it is expedient in the public interest to do so by order accord approval to the proposal. But if the Central Government is of the opinion that approval cannot be made without further enquiry, it may refer the application to the Commission, for enquiry and the Commission may "after such hearing as it thinks fit" report to the Central Government its opinion on the application. The Central Government may thereafter pass orders on the application but before making an order, by virture of section 29 of the Central Government shall give reasonable opportunity of being heard to any person who is or may be interested in the matter.

Section 8 of the Monopolies and Restrictive Trade Practices Act provides that the Central Government may in consultation with the Commission appoint a Director of Investigation for making investigations for the purposes of the Act. In fact, a Senior Govt. Officer has been appointed as Director of Investigation and he has a complement of joint, Deputy and Asstt. Directors and other staff to assist him in the work of investigations for the purposes of the Act. Section 12(1) confers on the Commission for the purposes of any enquiry under the Act certain powers of a Civil Court. Sub-section (2) provides that any proceedings before the Commission shall be deemed to be judicial proceeding for certain purposes and the Commission shall be deemed to be a Civil Court for certain other purposes. The provisions of section 12 and 8 would indicate that the proceedings before the Commission are judicial proceedings for certain purposes. But at the same time the Commission is also an investigating body and has a Director of Investigation appointed by the Central Government and other staff under him at the disposal of the Commission for causing investigations to be made for the purpose of the Act. Unlike the judicial proceedings in a Court, the Commission has at its disposal machinery for making investigations and gathering information on its own. There, however, does not appear to be any doubt that the Commission is a quasi judicial body.

Sections 17 and 18 of the Act read as under :—

17. (1) Subject to the provisions of sub-section (2), the hearing of proceedings before the Commission shall be in public.

(2) Where the Commission is satisfied that it is desirable to do so by reason of the confidential nature of any offence or matter or for any other reason, the Commission may:—

(a) hear the proceeding or any part thereof in private;

(b) give directions as to the persons who may be present thereat;

(c) Prohibit or restrict the publication of evidence given before the Commission (whether in public or in private) or of matters contained in documents filed before the Commission.

18. (1) Subject to the provisions of the Act, the Commission shall have power to regulate:—

(a) the procedure and conduct of its business;

(b) the procedure of Benches of the Commission;

(c) the delegation to one or more members of such powers or functions as the Commission may specify.

(2) In particular, and without prejudice to the generality of the foregoing provisions, the powers of the Commission shall include the power to determine the extent to which persons interested or claiming to be interested in the subject matter of any proceeding before it are allowed to be present or to be heard, either by themselves or by their representatives or to cross-examine witnesses or otherwise to take part in the proceedings.

Section 28 provides that the Commission shall take into account all matters which appear in the particular circumstances of each case to be relevant having regard to the need consistently with the general economic position of the country in making recommendations about approving the proposal of applicants. One such consideration would be to achieve the production, supply and distribution by most efficient and economical means of goods of such types in qualities in such volume and at such prices as will best meet the requirements of the Defence of India and home and overseas markets. Section 29 provides that before making a final order the Central Government shall give a reasonable opportunity to all persons who may be interested of being heard.

The other relevant provisions of the Act are : Section 60 which provides restricting on the disclosure of information obtained by or on behalf of the Commission; section 52 provides the penalty for wrongful disclosures of such information; Section 66 empowers the Commission to make regulations for the efficient performance of its functions under the Act. Subject to such Regulations the Commission has under section 18(1) the power to regulate its own procedure and conduct of its business.

The Commission has made Regulations for enquiries. These are called the Monopolies and Restrictive Trade Practices Commission Regulations, 1971. Regulation 5(2) provides that where a reference has been received from the Central Government under, *inter alia*, section 22, the Commission may "where it considers necessary" hold an open enquiry after giving notice to the parties concerned and to the Central Government. It may also "if it considers necessary" permit persons interested in the subject-matter to be present or to be heard either by themselves or by their representatives or to cross-examine witnesses or otherwise take part in the proceedings. Sub-Regulation (3) provides that the parties concerned may be represented by a Counsel or by a Chartered Accountant specifically authorised by them to act on their behalf. Regulation 6 provides that the Commission shall notify to the Government and to the parties concerned the date and place of hearing. Regulation 8 provides that on such date or the date to which the hearing may be adjourned the parties concerned shall be heard in support of their replies. Regulation 9 provides that the material gathered by the Director may be brought on record at such stage of the proceedings as the Commission may think fit in which case the Commission shall communicate the gist of the said material to the parties concerned and given them an opportunity to rebut the material gathered by the Director. After the hearing the Commission shall make its report to the Government under Regulation 11.

At this stage it may be mentioned that on receiving a reference from the Government the Commission has made a practice of issuing a public notification in the Press giving material particulars of the proposals of applicants contained in their application. The notification "invites all these persons who are in a position to give any information/comments which will be of assistance to the Commission in its enquiry to do so". The notification also stated that such persons may send the information/comments to the Secretary to the Commission by a particular date and while sending the information/comments they may also indicate whether they would like to participate in the public heairing regarding the proposals.

Such notification in this particular case was issued on 24th September, 1973, and the two opponents have entered appearance and sent their information/comments to the commission pursuant to such notification and have also stated that they would like to participate in the public hearing regarding these proposals. Thereafter, they have made the present application for discovery.

As we have stated herein above there is no doubt that the proceedings before this Commission are quasi judicial proceedings. The purpose of the Act is to provide that the operation of the economic system does not result in the concentration of economic power to the common detriment and to control monopolies. There appears to be no doubt that every citizen of India is concerned to prevent the concentration of economic power to the common detriment and is entitled to appear before this Commission and to participate in the proceedings at the public hearing if he enters appearance and furnishes information/comments in compliance with the Regulations framed by the Commission and the public notification issued by it. This right is, however, subject to the limitations imposed by sections 17 and 18 and the other provisions of the Act and the Regulations made thereunder. There is, therefore, no doubt as to the *locus standi* of the Opponents to appear in these proceedings subject, however, to restrictions mentioned herein above. But it must be said that the proceedings before the Commission are not adversary proceedings and are not *inter partes*. The Opponents are not entitled "to show cause" against the application and are not parties to the proceedings in the strict sense contemplated by the Code of Civil Procedure. They are members of the public who are entiltled to furnish information and assistance to the Commission to the extent permitted by the Commission under sections 17 and 18 and other provisions of the Act and Regulations to enable the Commission to discharge its duty of controlling monopolies and preventing concentration of economic power to the common detriment. The participating by the opponents in the proceedings of the Commission is strictly limited to the assistance required by the Commission under section 17 and 18 and other provisions of the Act and Regulations framed thereunder.

The Commission has other sources of information and assistance to which it resorts in the discharge of its duties. Immediately after the issuing of the public notification the Commission causes investigation to be made and information to be gathered from Government Departments with regard to requirements of the Defence of India and home and overseas markets, statistics with regard to the anticipated national demands for the article proposed to be produced under the application, about the total licensed capacity in India and the total production. The Commission also gathers information from Government and Private bodies with regard to the possibility of production of such articles in India without foreign technology or machinery if the applicant has shown a desire to acquire such technology or machinery and also the reaction of several Ministries about foreign exchange and other requirements of the proposals. Such information is of highly confidential nature which the Commission may take into consideration but may not disclose to opponents of the proposal like the present opponents. An extreme example is the collecting by the Commission of information as to requirement for the Defence of India. It will be dangerous and not in public interest to disclose such information to members of the public.

Similarly, applications under section 22 of the Act contain information of confidential nature disclosed by the applicants to the Central Government, which it may pass on to the Commission. Such information may pertain to the details of the proposed collaboration agreement for obtaining foreign technology, capital or assistance or market surveys conducted by the applicants for their own use at a considerable expense to gauge the market requirements of the country. There can be other reasons for which some of the information contained in the application cannot be disclosed.

Sections 17 and 18 empower the Commission to hear any proceeidings in private and to prohibit or restrict the publication of evidence or of matters contained in documents filed before the Commission. Grant of a copy of such document even to a single person would, in our opinion, amount to publication. Section 18(2) empowers the Commission to determine the extent to which persons like the opponents are to be allowed to be present or to the heard. These provisions indicate that persons like the opponents may be allowed to participate only in part of the proceedings and may be kept out of the remaining part of the proceedings. The power to prohibit or restrict publication of matters contained in documents filed before the Commission is to be exercised if the Commission is satisfied that it is desirable to do so. In such cases the Commission may refuse to furnish persons like the opponents copies of any documents filed before it or parts of such documents. This may be done for the reasons that such matters or information is of confidential nature or it may do so for other reasons. Section 30 of the Act prescribes a period of 60 days within which the Commission must make its report subject, however, to the power of the Commission to extend this time for good reasons. The limitation of time within which the Commission must make its report is absolutely necessary. If the making of the report is delayed too long the figures furnished by an applicant with regard to the cost of the project may become obsolete due to the rising prices. Similarly, other information furnished in the documents may become obsolute. Undue delay may also result in impeding the industrial progress of the country, discouraging the new enterprises and effect the flow of supplies causing shortages and price rise. It may exasperate the enterepreneur or his foreign collaborator. For these and other reasons, it becomes necessary to limit the extent to which persons interested or claiming to be interested in the subject-matter of any proceeding are to be allowed to be present or to be heard only to the extent of assistance required by the Commission in the circumstances of each case. Disclosure of information and documents to such persons has also of necessity to be limited so as to provide that matters of confidential nature are not disclosed including processes of manufacture which are the private property of the parties. Bearing these considerations in mind each application for disclosure of documents and information or the extent of participation in proceedings before the Commission has to be determined by the Commission. If the Commission were to function like a Court of Law in every respect the proceedings would take too long and the abovementioned purposes would be defeated.

It is true that in cases of large or dominant underakings which are registered under section 26 of the Act they have to satisfy the Government or the Commission that their proposals to expand are not to the common detriment. But the nature and extent of the participation in the proceedings by any person interested or claiming to be interested has to be limited by virtue of the provisions of the sections 17 and 18 and other provisions of the Act and Regulations framed thereunder. They have not "to show cause" but render information and assistance to the extent permitted by the Commission. With regard to the documents and information to be furnished to such persons also the matter has to be governed by the Orders of the Commission in each case bearing the above considerations in mind. Such persons would not be entitled to all the information gathered by the Commission from the several sources indicated herein above including the applicant. There has of necessity to be an area of information which the Commission may take into account in making its report. There is, however, a stage at which some of the information may become available to the persons like opponents. The Commission includes in its report the material on which its conclusions are based. The report is made available to such persons by the Government at the stage of hearing by the Government under section 29 of the Act.

It is, however, open to the persons who have entered appearance and have been permitted by the Commission to participate in the proceedings to place all the information and render all the assistance that they can to the Commission.

Mr. B.A. Desai contended that granting approval to the proposal of the Applicants would adversely affect his clients who are the business rivals of the Applicants, and therefore they are entitled "to show cause". We are afraid we cannot accept this contention. If this proposition were correct there would be provisions in the Act for joinder of business rivals as parties. Mr. Desai's clients are themselves in a large way of business. One of the purposes of the Act is to promote competition as a countervailing force to monopoly power. We have to consider the Applicants' proposal in that light. It does not confer the status of an adversary on Mr. Desai's clients.

Mr. B.A. Desai contended that under section 29 of the Act the opponents would be entitled to a "reasonable opportunity of being heard" by the Government, and therefore, such responsible opportunity of being heard would be co-extensive with "after such hearing as the Commission thinks fit" in section 22 of the Act. He further contended that because the Commission was a judicial body the rules of natural justice require that a reasonable opportunity of being heard should be co-extensive with opportunity which a Civil Court gives a party to the proceedings. He contended that his clients would, therefore, be entitled to all the documents and the other information on which the Commission may rely for making its report. We are afraid for reasons herein above discussed we cannot accept this contention.

Mr. Desai cited before us judgements of the Supreme Court in A.I.R. 1957 S.C. 882 and A.I.R. 1961 S.C. 1623. These are cases under Article 311 of the Constitution where material to be used against an employee of the State is to be disclosed to him with a view to give him a reasonable opportunity of being heard before he is penalised. We are afraid these cases have no application to the proceedings under Chapter III of the Monopolies and Restrictive Trade Practices Act. There is no material intended to be used against the opponents which must be disclosed to them in order to give them also a reasonable opportunity of being heard. It is not intended to punish or penalise them. Mr. Desai has also invited our attention to the judgement of the Supreme Court in 1966 (3) S.C.R. 744 and A.I.R. 1960 Punjab 86. We are afraid these cases have also no application to the facts of the case and we do not consider it necessary to deal with them in detail.

Dr. L.M. Singhvi invited our attention to the case of Russel V. Duke of Norfolk and others reported in 1949(1) A.E.R. 109, where Tucker L.J. has observed that "There are in my view no words which are of universal application to every kind of enquiry and every kind of domestic tribunal. The requirements of natural justice must depend on the circumstances of the case. The nature of the inquiry, the rules under which the tribunal is acting, the subject that is being dealt with and so forth. Accordingly I do not derive much assistance from the definitions of natural justice which have been from time to time used. But whatever standard they have adopted, one essential is that the person concerned should have a reasonable opportunity of presenting his case". In a seperate judgement Denning L.J. has affirmed the above proposition. The above words have become almost a legal classic. Dr. Singhvi also cited the case of Official Solicitor to the Supreme Court V.K. & another (1965 A.C. 201) decided by the House of Lords in England, wherein in the speech of Lord Evershed the above quotation from the judgement of Lord Tucker has been quoted with approval. The above quotation was also affirmed with approval in the speech of Lrod Hailsham in the case of Pearlberg v. Varty (1972 (1) W.L.R. 534), decided by the House of Lords in England.

Dr. Singhvi has invited our attention to two cases decided by our own Supreme Court. The first case is that of Bharat Barrel & Drum Manufacturing Co. v. L. K. Bose and others: A.I.R. 1967 S.C. 361 wherein it has been held that rules of natural justice are not inflexible rules of universal application. Court has to consider in each case whether in the light of the facts and circumstances of the case, nature of issues involved in enquiry, nature of the order passed and interest affected thereby, a fair and reasonable opportunity of being heard was furnished to the person affected. The other case is Union of India v. J.N. Sinha. A.I.R. 1971 S.C. 40 where it has been held that rules of natural justice are not embodied rules nor can they be elevated to the position of fundamental rights. Their aim is to secure justice or to prevent miscarriage of justice. These rules can operate only in areas not covered by any law validly made. They do not supplant the law but supplement it. If a statutory provision can be read consistently with the principles of natural justice, the Courts should do so. But if a staturory provision either specifically or by necessary implication excludes the application of any rules of natural justice then the Court cannot ignore the mandate of the lagislature or the statutory authority and read into the concerned provision the principles of natural justice. Whether the exercise of a power conferred should be made in accordance with any of the principles of natural justice or not depends upon the express words of the provision conferring the power, the nature of the power conferred, the purpose for which it is conferred and the effect of the exercise of that power.

In this case we must remember that the Opponents are the business rivals of the Applicants although Laxmi Starch is in a smaller way of business. Maize Products have themselves applied to the Contral Government for permission to expand their business with foreign collaboration. As we have indicated herein above the Oppenents are not parties in an adversary proceeding. They have come before us as citizens of India or members of the public in answer to an invitation contained in a public notification to furnish information and assistance to the Commission. They are not called upon "to show cause" against the application. The public notification itself contains the material particulars of the proposal of the Applicants contained in their application. There could however be some particulars which are omitted from the public notification. We have therefore decided that in order to enable the Opponents effectively to assist the Commission in the discharge of its duty it is necessary as well as sufficient to furnish to the opponents a copy each of the application under section 22 of the Monopolies and Restrictive Trade Practices Act which contains the proposals of the Applicants with regard to the proposed new undertaking. We have however decided to omit from the copies the details of the chemical composition of some of the products, the quantities of production other than starch as these are irrelevant and copy of collaboration agreement.

We have carefully gone through the application filed by the Applicants under Section 22 of the Act and the other information available to us and have also considered the confidential nature of the information, the time that the enquiry must take and the desirability of the publication of matters contained in the documents filed before us in the public interest. We have also considered the consequences that full disclosure will have on industrial development of the country integrity and fidelity of commercial transactions and impingement of certain disclosures on the proprietary rights in the results of research and survey.

Taking into consideration the express words of section 17 and 18 of the M.R.T.P. Act, the purpose for which these provisions were incorporated and the effect of the exercise of the power of discovery and inspection and the matters discussed herein above we have decided not to make available to the Opponents the remaining information in the possession of the Commission and we proposed to make the order hereinafter made.

M/s. Maize Products and M/s. Laxmi Starch Ltd. be furnished a copy each of the application made by M/s. Anil Starch Products Ltd., to the Government under section 22 of the Monopolies and Restrictive Trade Practices Act along with its covering letter and Annextures with the following being omitted from such copies :—

(a) From page 12 of the applications the names of individual chemicals shall be omitted.

(b) From Annexure 'B-1' to the application, Particulars of products manufactured by Anil Starch Products Ltd. other than starch shall be omitted.

(c) Annexure 'B-2' shall be omitted. (This Annexture is a copy of the proposed foreign collaboration agreement between Anil Starch Products Ltd.)

(d) Annexure 'D' shall be omitted. (This Annexture is a copy of the proposed foreign collaboration agreement between Anil Starch Products Ltd., and M/s. National Starch Products).

With regard to the remaining items disclosure whereoff is prayed for, the applications are rejected.

(Sd.)
(JUSTICE J.L. NAIN)
Chairman

(Sd.)
(H.K. PARANJAPE)
Member

NEW DELHI,
the 11*th* *February* 1974.

ANIL STARCH PRODUCTS LIMITED, AHMEDABAD

APPENDIX 'F'

Statement showing the various lines of manufacture of Anil

Name of the Product	*Licensed Capacity*	
1. Starch	60,000	M.Tons.
2. Dextrose Monohydrate	18,000	„
3. Liquid Glucose	18,000	„
4. Calcium Gluconate	150	„
5. Sulphuric Acid	30,600	„
6. Nitric Acid	360	„
7. Alumina Ferric	1,100	„
8. Ammonia Alum	540	„
9. (a) Crude Amylase	300	„
(b) Gluco-Amylase	7,000	K. Litres
(c) Refined Amylase	150	M. Tons.
(d) Protease	25	„
10. (a) Activated Carbon	100	„
(b) Sodium Silicate (Bye-Product)	300	„
11. Anhydrous Dextrose	1,000	„
12. (a) Sorbitol Liquid	2,000	„
(b) Sorbitol Powder	100	„
13. Forgings	1,104	„
14. Superphosphate	34,000	„
15. Silicofluoride	74	„

ANIL STARCH PRODUCTS LTD., AHMEDABAD

APPENDIX 'G'

Details of Speciality Starches proposed to be manufactured

No.	Brand Name	Varieties	Properties & Applications
1	2	3	4
1.	CATO	17	—Effective for improving various strength factors and increasing filter and pigment retention in the fine paper field. Improves base stock receptivity for the coating color. Ideal wet-end starch for machine finished offsets, mimco-letterpress and writing papers. Coupling agent for synthetic sizes in paper industry. As surface size to reduce fuzz and improve finish and gives smoother and stronger surface. —Use of Alum can be eliminated. —Resin sizing is improved by using one of the CATO variety. —Substantially increase the retention of anionic resins added to the beater. —The various types of CATO are oriented towards application to different grades of paper, conditions under which the paper is manufactured and water conditions in the area.

1	2	3	4
2. CATO BOND		4	—Cationic coating binders of various viscosity characterstics, exhibiting improved pigment binding efficiency and water resistance. —Gives high binding efficiency, sharply reduced binder levels, excellent ink hold out, improved surface characteristics higher gloss and opacity, improved porosity. —Used in Web offset, letterpress-enamel letter press publication rolls, size press pigmented stocks, sheet fed offset papers.
3. CATO-KOTE		9	—A series of highly modified cationic coating binders designed to replace casein and protein in water resistant coatings. —It has higher ink hold-out and ink absorption is more uniform than casein and protein.
4. CATO SIZE		7	—Cationic starches of various viscosities for the surface sizing of paper, used to improve the physical properties of the paper, while reducing the BOD/COD of paper machine affluent. It improves printability, greater opacity strength higher-wet-end retention, easier drying, improved operability, water resistence and easy handlings.
5. FIBER SIZE		4	—Oxidised starches of various viscosities for surface sizing and paper coating.
6. FLOKOTE		3	—Application in Aerosol Laundry starch preparation.
7. HALEX		11	
8. FLOZYME		12	—Modified starches for enzyme or thermal conversion for use in Paper Industry.
9. HOOSIER		23	—Unmodified or lightly modified starches containing special buffering additives for enzyme and thermal conversion for use in Paper Industry.
10. HYDROSEAL		2	—Pregelatinised starch used as a beater additive to paper.
11. KOFILM		8	—Modified starch for the surface sizing paper, generally superior to oxidised starch in this application.
12. MULBOND		2	—Special cationic starch for improving strength in linerboard.
13. NAPON		3	—High film forming starch for special grease, oil and solvent resistant paper coatings.
14. NUGUM		1	—Special strength additive for linerboard and offset newsprint.
15. PEARL PLUST		2	—Modified starch for enzyme conversion for use in paper industry.
16. AQUA DEX		2	—Progelatinised formulated starches for bag pasting, paper laminating etc.
17. BOTTOM DEX		2	—Bag making adhesive.
18. DURABOND		3	—Modified starch for corrugating (Carrier and raw portion) and internal binder for accoustical tile, ceiling tile, etc. Uniform adhesive with a stable viscosity.
19. GUMING DEX		2	—Formulated dextrines for tape, stamps and envelope gumming.

1	2	3	4
20.	KOBOND	3	—Pregelatinised carrier starch for corrugating.
21.	LAY FLAT	4	—Laminating adhesives.
22.	NABOND	1	—Speciality carrier starch for high speed corrugating and for modestly water resistant corrugating applications (banana boxes, produce boxes), when used with catalyst.
23.	TAPON	4	—Animal glue replacement in the manufacture of remoistenable gummed tape, stamps, lables etc.
24.	VINAMYL	1	—Speciality carrier starch for highly water resistent corrugating applications, used in conjuction with catalyst.
25.	AMBERTEX	1	—A viscose modified starch solution used as natural gum replacement for textile print paste thickner, for roller, screen vat printing.
26.	AMYLON	5	—Modified, high amylose starch glass fiber forming size.
27.	CM STARCH	1	—High film forming carboxy methylated starch for replacing CMC in Textile sizing.
28.	CATO 75	1	—Low viscosity cationic starch for glass fiber sizing and fibre glass mat binding.
29.	CLEARFILM	1	—A stable, low viscosity starch for knit goods finishing, stiffening and hand binding.
30.	FLOTEX	4	—A high viscosity starch for print thickening in Textile.
31.	HFS STARCH	3	—Gives not only tougher films but also size solutions are resistant to viscosity breakdown by high temperature and agitation. Unique type of warp size.
32.	HI BOND	3	—High Amylose cationic starch for low add-on warp sizing of synthetic blends and difficult to veave construction. Extremely high film strength and excellent affinity for textile fibres.
33.	KOSOL	2	—An extremely stable pregelatinised starch for aerosol spray solution. Readily dissolves in cold water to form smooth, non-congealing solutions.
34.	HADEX	55	—A series of modified starches used in textiles for back coating, finishing. dye standardisation etc.
35.	NAPON	3	—Highly stable chemically modified starches for speciality finishing applications in Textiles.
36.	NUFILM	3	—Chemically modified starch for speciality coating and leather finishing.
37.	SILIDEX	2	—Berated chemically modified starch for textile finishing.
38.	STARLENE	1	—Cold water soluble instant-laundry starch.
39.	TEXELO	2	Modified starch for warp sizing 100% cotton and less demanding Polyster/cotton styles.
40.	TEXBOND	1	Modified cationic high amylose starch for warp sizing difficult to weave cotton and intermediate synthetic/cotton blends.

1	2	3	4
41. AMIOCA		8	—Food grade—recommended wherever an extremely clear, non-gelling product with long texture and high stable viscosity is necessary. Typical application is as filling aid to decrease "slopping" during high speed operations in canned foods.
42. AMYLON HL. AET		1	—Sets rapindly to a film gel-production rate of jelly gum and extruded snacks is increased.
43. BAKA SNAK		1	—Food grade pregelatinised starch for extruded or sheeted crackers and snacks and for instand pudding. Excellent expansion, quick set, no frying required, newer flavours possible.
44. BATSER BINDS		1	—Modified starch for improved adhesion of breading to fried fish, chicken etc. Improved color and flour is obtained.
45. CAPSUL		1	—Unique modified starch for encapsulation of flavour and elouding oils. Replaces Gum Arabic by producing better emulasions and encapsulations.
46. CLEARJEL		3	—Modified starch with a smooth short texture when used in highly acid foods such as bakery fillings, canned sauces and gravies. No tendency to set to a gel, excellent shelf-life of canned foods, no liquid separation.
47. PURITY WNA		1	—Shear resistant starch for use in moyonnaise type salad dressings.
48. COLILO 67		7	—Freeze-thaw and shelf-life stability of canned products, stable in acid foods. Application in frozen pie, gravies, soups and sauces.
49. CRISPFILM		2	—Modified food starch used to improve crispness after frying of extruded potatoes, meat and vegetable products. Oil-pick-up is less and uniform coloring or browning during frying is obtained.
50. CRYSTAL GUM		2	—Modified Tapioca Starch to replace Gum Arabic in pen coating and hard gum formulations.
51. INSTANT CLEARJEL		4	—Progelatinised starch particularly suited for frozen food where cooking is not preferred.
52. MELOJEL		6	—Food grade refined corn starch with application in bakery products, dry mixes, and as a moulding starch additive.
53. PARBELO		1	—Very stable food grade starch products for high shear, high temperature products and exceptional freeser storage stability. Application in canned puddings.
54. PURITY 270		2	—Designed for spoonable salad dressings where very short cuttable texture is desired.
55. PURITY 420		2	—Designed for salad dressings produced in the advanced continuous processing equipment.
56. PURITY W		1	—Very stable modified starch designed for higher pH and low shear systems. Application in Canned, retorted high pH systems such as gravies, stews, soups etc. as well as in acid foods such as fruit pie fillings, tarts etc.

1	2	3	4
57.	TEXTAID	1	—Designed to replace the natural pulpiness of tomatoes and fruit which is lost in high temperature processing.
58.	INSTANT TEXTAID	1	—Readily dispersible in cold systems. Designed for products which will be heated only slightly or not at all such as beverages, limitation bakers jellies.
59.	BIOSORE	1	—A chemically inhibited starch, which retains its free flowing nature after auto claving and is assimilated by the body-used as surigical dressing powder.
60.	DRYFLO	4	—Hydrophobic free flowing starch used as offset powder in printing and flow control agent in various products such as cosmetic powders, lubricating agent, food dusting etc.
61.	FLOC AID	3	—Cationic floceulent for potable water treatment.
62.	FOUNDRY DEX	2	—Core binder for foundry moulds.
63.	NADEX	..	—For formulated adhesives, sizing, coating, extenders for dye standardisation, suspensation agents for detergents etc.
64.	PAN-X-TROL	1	—A chemically modified starch used as a green / sand expansion control agent to prevent molding defects in the foundry industry.
65.	VULCA	6	—A series of chemically inhibited starches which retain their granular nature under heat, and used for dusting powders (talc replacement).
66.	HYDCSJAL	..	—Pregelatinised starch which helps to overcome adverse drilling conditions, caving formations drilling into producing zones and for improving ordinary oil drilling operations in deep or shallow walls. Agriculture texicant binder, sticker for agricultural sprays—as general purpose thickener.

CONFIDENTIAL

APPENDIX

Economics of the Project

M/s. Anil Starch have submitted project Profit & Loss Account and Balance Sheet for the first five years of working. The likely financial position of the Joint Venture during these years is indicated as below.—

(Rs./lakhs.)

	1st Year	2nd Year	3rd Year	4th Year	5th Year
Net Fixed Assets	66·90	59·80	52·70	45·60	38·50
Working Capital					
Current Assets	13·51	17·69	21·89	26·56	34·76
Less Current Liabilities	1·50	2·00	2·50	3·00	4·00
Working Capital	12·01	15·69	19·39	23·56	30·76
Total Capital Employed	78·91	75·49	72·09	69·16	69·26
Finance by :					
Share Capital	30·00	30·00	30·00	30·00	30·00
Reserves & Surplus	5·41	12·49	15·09	18·16	22·26
Loans	43·50	33·00	27·00	21·00	17·00
Total Capital Employed	78·91	75·49	72·09	69·16	69·26

Profitability of the Joint Venture

The Table below gives the expected cost of production, sales realisation and gross profits during the first five years as indicated by the applicant company.

Cost of sales, Sales and Profits

(Rs./Lakhs)

	Ist Year	2nd Year	3rd Year	4th Year	5th Year
Production (tonne)	4500	6000	7500	9000	12000
Cost of Sales Material Consumed—					
Starch Slurry (Rs. 1600 per tonne)	72·00	96·00	120·00	144·00	192·00
Salaries & Wages	5·25	5·78	6·36	7·00	7·70
Chemicals (Imported)	1·74	2·32	2·90	3·48	4·64
Stores & Spares	0·63	9·83	1·03	1·25	1·66
Power & Fuel	3·87	5·43	6·79	8·15	10·86
Repairs & Maintenance	0·60	0·90	1·50	2·10	3·00
Overheads (less Commission received)	9·50	13·50	17·50	21·50	29·50
Depreciation	7·10	7·10	7·10	7·10	7·10
Total	100·69	131·86	163·18	194·58	256·46
Sales	112·50	150·00	186·50	225·00	300·00
Gross Profits	11·81	18·14	24·32	30·42	43·54
Gross Profits as percentage of :					
Sales	10·50	12·09	12·97	13·52	14·51
Cost of Sales	11·73	13·76	14·90	15·63	16·98
Average Capital Employed	..	23·50	32·96	43·08	62·91
Equity/Debt Ratio	1:1·45	1:1·10	1: 0·90	1: 0·70	1:0·57

The percentage of Gross Profit on average capital employed is very high. Usually a return of 12 to 15 per cent average capital employed is allowed by the Government in fixation of prices.

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Basic of Projections

In these calculations the applicant company has projected the realisation from sales on the assumption of an average price of Rs. 2,500 per tonne. The net realisations from exports are taken at Rs. 2,350 per tonne. In the projections of cost of production, the main material consumed, namely, Starch slurry, is assumed to be available at the cost of Rs. 1600 per tonne. This in trun is based on the price of Maize at Rs. 900/- per tonne and other costs as indicated below.

Cost of Starch Slurry

		Cost per tonne (Rs.)
1. Maize @ Rs. 900/- (Recovery 60%)		1,500/-
2. Labour		55/-
Total of Material & Labour		1,555/-
3. *Other expenditure*		
(a) Fuel and Power Rs. 71		
(b) Stores, Spares & Repairs Rs. 45		
(c) Overhead, including depreciation, insurance, interest etc.	169/-	285/-
4. TOTAL COST		1,840/-
5. Less : Not recovery of by-products		242/-
6. NET COST OF STARCH EQUITY		1,597/-
i.e. AROUND		1,600/-

The applicant Company has indicated that current world prices of speciality starches vary between Rs. 3,500 to 4,400 per tonne. On the basis of the cost of production, which comes to around Rs. 2,150 per tonne, the applicant company thinks that it would not be difficult for it to export these products at a profit.

Net Inflow of Foreign Exchange

The applicant company has also submitted a foreign exchange balance sheet indicating inflow of foreign exchange through exports of speciality starches and the outflow of foreign exchange in the shape of imported chemicals, commission on exports, engineering and technical fees and dividends to foreign collaborators. This information is presented in Statement 3 in the Main Report. In these calculations the applicant company has assumed average sales realisation from exports at Rs. 3,000 per tonne out of which 10% is to be paid as commission and Rs. 350/- as ocean freight charges. The net realisation thus would be Rs. 2,350 per tonne. For the manufacture of speciality starches the company has indicated that two chemicals, namely, Betadi ethylaminceithyl and Epichlorlydrin will have to be imported. The quantities have been indicated at 30 tons and 1 ton respectively. These chemicals are expected to cost Rs. 4.64 lakhs per annum after reaching the Licensed capacity. For the first five years the Company has indicated the improts of these chemicals at Rs. 15·88 lakhs. based on its phased production programme. It will be observed from this Statement that a net inflow of foreign exchange to be tune of Rs. 62 lakhs on current account is expected to by the applicant company during the first five years. If capital transactions are also taken into account, the net inflow gets reduced to Rs 52 lakhs.

Objections

The two main objectors, namely, Matze Products and Laxmi Starch have raised doubts regarding the feasibility of experts of speciality starches as well as the foreign exchange outgo in acquiring the chemicals required for the manufacture of these starches. In respect of the first objection, the companies, have indicated that as the price of maize and tapioca starch in India is much higher than in the United States, due to high prices of maize, the minimum export price per tonne in India would be much higher than the USA price. Maize Products have also indicated that India is unable to export even plain processed starches without heavy government subsidies and hence export of speciality starch involving additional utilisation of raw material and further processing seems to be unlikely.

The applicant company has, in reply to these objections, indicated that, "the manufacturing cost of the India plant will compare favourably with the manufacturing cost of the subsidiaries of its collaborators because while the plant size will be similar, the cost of labour, technicians, administrators, etc. in India is much lower than the cost of similar personnel abroad." The Company has also refuted the charge relating to high prices of Maize in India, indicating that as against the price of around Rs. 900/-per tonne of maize in India the equivalent American price is around Rs. 870/-per tonne. The Company has also stated that the difference between the Indian and international price of maize will be narrowing very fast in future indue to higher yields expected in India with the use of more fertilisers. The Company has also pointed out that the countries like the U.K., Holland and Japan have to depend on imported maize and hence India will be in a favourable position to produce speciality starch based on maize starch. The company has further indicated that as the cost of maize will be approximately 50% of the current selling price of speciality starch even with the existing prices of maize, India will be able to export speciallity starch because in the manufacture of speciality starch the added value is much more than the added value in the manufacture of ordinary starch.

Regarding the price of chemicals, Maize Products supplied to the Commission the copy of a letter from an importing firm indicating the price at which these chemicals could be obtained by that firm. This was approximately Rs. 37,000/ per tonne. On this basis, Maize Products worked out that the cost of importing the chemicals during the first five years of operation of the Joint Venture would be approximately Rs. 36 lakhs, as against Rs. 15 lakhs assumed by Anil Starch. Laxmi Starch also assumed the price of this chemical at Rs. 37,000 per tonne and provided an inflow and outflow of foreign exchange as indicated below :—

Inflow	Rs. in lakhs	Out flow	Rs. in lakhs
Share Capital	12·00	Plant & Machinery	15·00
		Know-how & Engg. Fees	7·50
		Import of Chemicals	36·06
		Dividend Payments	14·31
Total	12·00	Total	72·87

Excess of outflow over a period of five years Rs. 60·87 lakhs.

Laxmi Starch further suggested that "this outflow is certain; the inflow on account of exports, however, is highly doubtful, if not impossible".

Regarding the feasibility of exports, the arguments given by the applicant company have already been indicated above. In respect of cost of chemicals to be imported, the applicant company has supplied the Commission a copy of a cable received by it from its collaborator indicating the price of this chemical to be US $ 60·00 per 100 pounds/CIF Bombay in May 1972 and the current price of $ 82·00 per 100 pounds/FAS New York. The Company has taken this (latest) price into account in the calculations relating to inflow and outflow of foreign exchange. It is necessary to make that this quotation is from a producer of the chemical.

No. 2/10/72/-M (III)

GOVERNMENT OF INDIA

MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS
DEPARTMENT OF COMPANY AFFAIRS

BEFORE THE CENTRAL GOVERNMENT

In the matter of an application under Section 22nd of the Monopolies & Restrictive Trade Practices Act, 1969

AND

In the matter of proposal of M/s. Anil Starch Products Limited for the manufacture of Speciality Starch Products.

M/s. Anil Starch Products Limited (hereinafter referred to as "the applicant company)" made an application dated 28-9-1972 (received in this Department on 10-10-1972 under section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 (hereiafter referred to as "the Act") for establishment of a new undertaking for manufacture of 12,000 MT per annum of Speciality Starch Products in financial and technical collaboration with M/s. National Starch & Chemical Corporation of USA. The annual turnover on the basis of full capacity was estimated at Rs. 1.80 crores.

Particulars of the phased manufacturing programme were as under:—

	M. T.	*Value (Rs. Lakhs)*
1st Year	4,500	67.50
2nd Year	6,000	90.00
3nd Year	7,500	112.00
4th Year	9,000	135.00
5th Year	12,000	180.00

The factory was to be located at Ahmedabad. The estimated capital outlay of Rs. 68.60 lakhs was allocated as under:—

	Rs. Lakhs
(i) Building	5.00
(ii) Machinery	
(a) Imported—15.60	
(b) Indigenous—33.00	
(including Electrical installation & Erection charges)	48.60
(iii) Know-how	3.00
(iv) Technical & Engineering Fees	4.50
(v) Working Capital	7.50
Total	68.60

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The cost of the project was proposed to be financed as follows:—

	Rs. lakhs
(a) Share Capital	30.00
(b) Long term loans from financial institutions	30.50
(c) Loans from Banks etc.	8.10
Total	68.60

It was proposed to float a new private limited company with a share capital of Rs. 30 lakhs of which 40% shares (Rs. 12 lakhs) would be subscribed by the Promoters—the applicant company another 40% (Rs. 12 lakhs) by the foreign collaborators—NSSC of the USA and the balance 20%(Rs. 6 lakhs) was proposed to be issued to friends and relatives of the Directors of the proposed company.

2. The subscribed and paid-up capital of the applicant company is Rs. 104.60 lakhs consisting of 99,600 Ordinary shares of Rs. 100/-each (Rs. 99.60 lakhs) and 5,000 7% cumulative Preference shares of Rs. 100/- each (Rs. 5.00 lakhs.) It belongs to Kasturbhai Lalbhai group of companies and

is registered under section 20 (a) (ii) of the Act. It has admitted interconnections with three other undertakings. The value of its assets (Rs. 5.28 crores) together with the value of assets of its interconnected undertakings aggregate to Rs. 22.15 crores. It is engaged in the manufacture of Starch, Dextrose Monohydrate, Liquid Glucose Calcium Gluconate, Sulphuric Acid, Nitric Acid, Alumina Ferric, Ammonia Alum, Enzymes-Grude Amylase, Gluco Amylase, Refined Amylase Powder, Protease, Activated Carbon, Sodium Silicate, Anhydrous Dextrose, Forgings, Superphosphate, Sodium Silico Fluoride.

3. The proposal was advertised by the applicant company in the "TIMES OF INDIA" dated 23-9-72 and in the "INDIAN TRADE JOURNAL" dated 25-10-1972. Objections were received from the interested parties.

4. On the basis of the information available, the Central Government came to the conclusion that no order under section 21 (3) (a) of the Act could be made in this case without further enquiry. Accordingly in exercise of the power conferred by clause (b) of sub-section (3) of Section 21 of the Act, the Central Government referred the proposal of the applicant company to the Monopolies & Restrictive Trade Practices Commission (hereinafter referred to as "the Commission") for further enquiry and report.

5. In its report the Commission recommended approval of the proposal of the applicant company subject to certain conditions. A copy of the Commission's Report dated 23-3-1974 was supplied to the applicant company and to such of the objectors who had disclosed their interest either before the Central Government or before the Commission as desired to have it.

6. An opportunity of being heard in terms of section 29 of the Act was given to the applicant company and to all the objectors who had lodged their objection to the Central Government or of the Commission during the enquiry. The representatives of the applicant company were informed that the Commission's recommendations relating to the creation of Foreign Dividend Reserve Fund for payment of dividends to the foreign shareholders would amount to the creation of a separate class of equity shares with different rights attached to them and that appeared to be against the provisions of the Companies Act. In reply the representatives of the applicant company also stated that such a condition was not acceptable to them. In regard to the condition relating to export obligation of 40% as recommended by the Commission, they were informed that since the proposed item of manufacture was not open to large houses/foreign companies, it was necessary that the export obligation should be the minimum of 60% if not more. As a matter of fact, the various circumstances of the proposal would point towards an export obligation of 75% or more. As regards the participation by the foreign collaborators in the equity capital of the proposed new company, they were informed that though the Commission had suggested equity participation to the extent of 40% the Central Govt. was normally averse to allow any equity participation by the foreigners except in priority sectors requiring sophisticated technology. The representatives of the applicant company expressed their inability to undertake export obligation of more than 40% or even to reduce the foreign equity participation in the capital of the proposed new company below 40 per cent. The applicant company subsequently reiterated its views in writing. After further consultation with their collaborators, the applicant company finally stated that it was not in a position either to reduce the qnantum of equity participation by foreign collaborators below 40 per cent in the joint venture or to undertake an export obligation of more than 40%.

The representatives of the objectors present at the hearing claimed that at present there was no demand for speciality starches in the country and that the technology was very much available in India. They contested the findings of the Commission regarding the development of Speciality Starches indigenously and stated that given a chance the speciality starches could be developed in India in a period of about 8 to 12 months and not five years as stated by the Commission in its Report. The so-called 300 starches proposed to be manufactured by the applicant company were only "brand" names and there was no sophistication involved in their production. The Indian industry was competent enough to undertake their manufacture provided there was a demand for such starches in India. They further reiterated that as the item of manufacture provided was not open to large houses/foreign majority companies the applicatn company had to undertake an export obligation of minimum of 60% to be eligible to enter this field.

7. The proposal of the applicant company has been examined by the Central Government carefully in the light of the Report of the Commission and the submissions made by the applicant company and the objectors at the hearing. The Central Govt. has come to the following conclusion:—

(i) Speciality starches are not of a high prority in the core sector of the country's economy and are not necessary for meeting the requirements of defence or of home market as at present assessed.

(ii) It is not established that the Speciality starches proposed to be manufacuted by the applicant company would be required in oilwell drilling.

(iii) The policy of the Central Govt. has been to permit foreign equity participation only very selectively in fields of high priority and in areas requiring very sophisticated technology. As such there is no justification for permitting sizeable equity foreign participation in this field. The applicant company has expressed its unwillingness to bring down the quantum of equity participation by its collaborators below 40%.

(iv) The item of manufacture is not open to large houses/foreign majority companies unless an export obligation of atleast 60% is undertaken. The applicant company has categorically expressed its unwillingness to undertake an export obligation above the level of 40%.

(v) If the proposal of the applicant company is approved on the terms recommended by the Commission it will benefit the foreign multipational corporation far more than the country's economy.

(vi) The proposed project is likely to affect the consumers adversely. In view of its increased dominance, the applicant company may exploit its position more effectively. It is likely to affect adversely other manufacturers particularly the small scale unts in Kerala using tapioca as their raw material.

(vii) The proposal is based on maize as raw material which is also used as food for the people of the country. Unless substantial additional cultivation of maize is undertaken, specially for industrial purposes, its availability for the starch industry will have to compete with its use as food for the people. The applicant company has not disclosed any plan to undertake or encourage addittional production of maize for industrial purposes. It has also expressed its inability to use Tapioca instead of maize for manufacture of speciality starches on the grounds of unsuitability.

(viii) According to the Council of Scientific and Industrial Research there is a good deal of competence for process development as well as for undertaking design and engineering of the process developed in the country in regard to the starch industry. There is no urgent need to establish their manufactur of these type of starches as there is no felt demand. As and when demand for these starches arises the country has enough competence in process development, design and engineerring and application facilities to develop the same.

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In view of the foregoing considerations, the Central Government is satisfied that it is not expedient in the public interest to accord approval to the proposal of the applicant company and that it should be rejected.

ORDER

In exercise of its powers conferred to it under Section 22 (3) (c) of the Monopolies & Restrictive Trade Practices Act, 1969, the Central Government hereby rejects the proposal of M/s. Anil Starch Products Ltd. as contained in its application dated 28-9-1972 under Section 22 of the said Act.

(Sd.)
(ASHOK NATH)
Deputy Secretary to the Government of India.

NEW DELHI—1
9th January, 1976

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REPORT UNDER SECTION 22 (3) (b) OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969, IN THE CASE OF BALLARPUR PAPER AND STRAW BOARD MILLS LIMITED, NEW DELHI.

10—10 M of LJ&CA/ND/79

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Sani-Katta Salt Manufacturing Society near Karwar. The objectors and supporters of the proposal also met the Chairman at Gokarna. These supporters and objectors were actually the farmers whose land had been acquired and who were presently growing paddy at the proposed site for Salt Works.

0.05. The Commission also discussed this proposal with the Salt Commissioner at Delhi.

0.06. The public hearing regarding this case was held on 17th and 18th June, 1975. Names of the persons who were present in the public hearing on these two dates are given in Annexure 'B' to the report.

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CHAPTER I

APPLICANT COMPANY

Historical Background

1·01 Ballarpur Mills was incorporated as a public limited company in the year 1945 having its registered office at Ballarpur in the District of Chandanpur in the State of Maharashtra. Its Head Office is at Delhi, M/s. Shri Gopal Paper Mills Ltd, (Registered Office Calcutta) which is said to be one of the oldest Paper Mills in the country and which was incorporated much earlier than the Ballarpur Paper Mills in the year 1936, was merged in Ballarpur Mills in the year 1969. Shri Gopal's paper factory is at Yamunagar in the State of Haryana. Ballarpur Paper Mills started production in June, 1953.

1·02 Ballarpur Mills is registered under Section 20(a) of the Monopolies & Restrictive Trade Practices Act, 1969. It has admitted inter-connection with 17 other undertakings. The value of its assets together with the value of the assets of the interconnected undertakings was Rs. 92·95 crores on the date of application i.e. 21st January, 1974. The names of the undertakings with whom interconnection has been admitted and information about the value of the assets of the interconnected undertakings and Ballarpur Mills are given in Annexure 'C'. The applicant company has been shown as a company belonging to "Thaper Group", in the Report of the Industrial Licensing Policy Enquiry Committee.

Present Share Capital Structure

1·03 The issued, subscribed and paid up capital of the company as on 30th June, 1974 was Rs. 7·63 crores. The break up is given below.

Share Capital:

Authorised Capital

	Rs.
2,50,000 9·3% Redeemable Cumulative Preference Shares of Rs. 100/- each	2,50,00,000
74,19,982 Ordinary Shares of Rs. 10/- each	7,41,99,820
Rs.	9,91,99,820

Issued Capital

1,47,490 9·3% Redeemable Cumulative Preference shares of Rs. 100/- each .	1,47,49,000
63,29,979 Ordinary Shares of Rs. 10/- each	6,32,99,790
Rs.	7,80,48,790

Subscribed Capital

1,47,490 9·3% Redeemable Cumulative Preference shares of Rs. 100/- each.	1,47,49,000
61,52,160 Ordinary Shares of Rs. 10/- each, fully called up . . .	6,15,21,600
123 Fractional Coupons of Rs. 5/- each.	615
Rs.	7,62,71,215
Less: 4,090 Ordinary Shares of Rs. 10/- each forfeited. . . .	40,900
Rs.	7,62,30,315
Forfeited Shares (Amount paid up)	20,431
Rs.	7,62,50,746

NOTES—Of the above :

(a) 35,000 Ordinary Shares are allotted as fully paid up without payment being received in cash.

(b) 22,87,630 Ordinary Shares are allotted as fully paid up by way of Bonus Shares capitalised from Reserves.

Shareholding Pattern

1·04 The pattern of the shareholding (equity shares) of the company as on the date of application was as below :—

	No. of shares	Percentage
(A) Schedule Banks	11,66,638	18·9
(B) Non-residents	20,535	·3
(C) Financial Institutions :		
(i) U.T.I.	1,56,482	
(ii) I.C.I.C.I.	44,850	
	2,01,332	3·4
(D) Insurance Companies :		
(i) LIC	6,44,679	
(ii) Indian Re-insurance Corporation Ltd.	20,718	
	6,65,397	10·8
(E) Thapar Group	19,12,281	31·1
(F) Others	21,85,976	35·5
	61,52,159	100·00

Source : Note for the Advisory Committee dated 7th February, 1975, Department of Company Affairs.

1·05 It would be observed from the above that largest 'block' of shares in the company is being held by Thaper Group of Companies, group directors, other directors and their relatives etc 35·5% shares are said to have been held by 'others'. The management of the company, as will be seen from subsequent discussion has, however, admitted that this company "is the core of Thapar Group".

Growth of the Company

1·06 Ballarpur Mills started production in June, 1953 when its first paper machine having a capacity of 25 tonnes per day was commissioned. This was followed by a Pulp Mill of the same capacity. By the year 1961-62, the Mill had started producing 13,000 tonnes of paper every year. The present installed capacity for paper is 69,000 tonnes per annum. This capacity has been achieved in a span of about 22 years since commencement of production in the year 1953. In the year 1970, English Indian Clays Ltd. became a subsidiary of the Ballarpur Mills. This company manufactures clays for the ceramic and paper industries etc. Towards the end of 1971, work at Karwar for a Caustic Soda Plant of 100 tonnes per day capacity was started and has since been completed. A licence was given to the company for the manufacture of the following at its Karwar plant:—

1. Caustic Sod	33,000 tonnes per annum
2. Liquid Chlorine	16,500 „ „ „
3. Hydrochloric Acid	10,000 „ „ „

This plant was commissioned on 30th May, 1975. The company has informed that the Government of India has recently issued a letter of intent to this company for expansion of its capacity at Karwar from 33,000 tonnes to 49,500 tonnes per annum. The capital goods clearance for the expansion has also been received. This programme is expected to be completed by mid 1977.

1·07 In Shree Gopal Division, the company is having Paper Mills, Caustic Soda Plant etc. The present capacity for paper production of this unit has been stated to be 42,500 tonnes per annum. The capacity of Caustic Soda Plant is 20 tonnes per day. In 1973-74, a coating plant of 20 tonnes capacity per day for the manufacture of Art Paper was set-up. In the same year, a 80 tonnes per day capacity—Vanaspati Plant — was also installed.

Existing lines of production

1·08 The applicant company is engaged in the manufacture of Writing and Printing Paper, Craft and tissue paper, Exercise Books, fancy stationery items, Vanaspati, Tin cans, Caustic Soda Chlorine and Hydrochloric Acid.

1·09 The existing Manufacturing Activities are organised under the following Divisions:—

1. *Shree Gopal Division*

(A) *Paper, Pulp & Soda Sections :*
  (a) Pulp and Paper (Including News Print)*
  (b) Caustic Soda
  (c) Liquid Chlorine
  (d) Hydrochloric Acid

(B) *Vanaspati Section :*
  (a) Vanaspati
  (b) Tin Container

2. *Ballarpur Division*
  (a) Pulp and Paper
  (b) Caustic Soda
  (c) Hydrochloric Acid

3. *Karwar Division*
  (a) Caustic Soda
  (b) Liquid Chlorine
  (c) Hydrochloric Acid

Management

1·10 The Ballarpur Mills is being managed by a Board of Directors. The present directors of the company are as under:—

1. Shri L.M. Thapar, Chairman & Managing Director
2. Shri M.M. Thapar, Director.
3. Shri H.P. Poddar.
4. Shri R.B. Sohan Lal
5. Shri S.M.R. Rao
6. Shri C.P. Merchant
7. Shri A.C. Bose.
8. Shri Keshub Mahindra.

1·11 It may be stated that most of the Directors are associated with companies belonging to the 'Thapar Group'. The day-to-day management of the different divisions is being looked after by the four Vice-Presidents. Each of the four Vice-Presidents is looking after one of the following Divisions :—

1. Karwar Division.
2. Shree Gopal & Ballarpur Division (Paper Division).
3. News Print (N.U. at Himachal Pradesh).
4. Overseas Projects.

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*An industrial licence granted to Shri Gopal Mills Ltd. for the setting up of a 200 tonnes per day News Print Mill in Himachal Pradesh was subsequently revalidated in the name of Ballarpur Mills. The report on annual accounts of the company for the year 1974 shows that the company's application for import of capital goods has been cleared by the Ministry of Industrial Development.

1.12 Before closing the discussion about the activities of Ballarpur Mills, it would be interesting to mention about its achievements in the words of its own management published in a brochure entitled "The Ballarpur Saga". The introductory portion of this publication reads as below:—

> "The range is wide. The activities diverse. The area of operations extensive: stretching from the sands of the South to Northern heights. With its headquarters at New Delhi, the Ballarpur Paper & Straw Board Mills Limited is recongnised today as one of the most forward looking of Indian Industrial Concerns. The core of the Thapar Group associated with my raid enterprises, it has established itself within a relatively few years as a pioneer in the development of backward areas and in pursuing efforts in fields new to India but which avant garde entrepreneurs the world over are striving avidly to explore".

Expansion and other Programmes

1·13 The Commission had asked the applicant company to furnish the details of the expansion proposals and their progress. The following table shows the expansion programme of the applicant company as furnished by it:—

Position Regarding Installed Capacity and Proposed Expansion

		Installed capacity (Tonnes per annum)	Proposed expansion (Tonnes per annum)	Likely final capacity
Caustic Soda	Karwar	33,000	16,500	49,500
	Ballarpur	6,600	3,300	9,900
Liquid Chlorine	Karwar	16,500	14,850&*	31,350
	Ballarpur	..	8,910*	8,910
Hydrochloric acid	Karwar	10,000	..	10,000
	Ballarpur	1,650	..	1,650
Calcium Hydrochlorite	Karwar	..	..	..
	Ballarpur	5,280	..	5,280

NOTE:— This gives capacity applied for. The Government has, however, issued Letters of Intent for expansion of Caustic Soda only with the proviso that Chlorine utilisation scheme was to be submitted separately for issuing separate licence later on. This is normal procedure for this industry.

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Other New Ventures

1·14 The other new ventures regarding expansion etc. under consideration and action by the company are—

1. Manufacture of Sodium Tripolyphosphate.
2. Acquisition of Ships.
3. Take-over of Singach Salt Works (Saurashtra).
4. Acquisition of shares in J.G. Glass.
5. Application for increase of STPP capacity, from 10,000 tonnes to 24,000 tonnes per annum.

1·15 The Salt Works at Singach, Saurashtra has been allowed to be acquired by Ballarpur Mills by Government Order dated 10th February, 1974. The sellers are in the process of completing further formalities in this regard. It is expected that Salt Works would be taken-over within a period of 4 to 6 months. An advance payment of Rs. 37 lakhs has already been made towards the purchase price.

Exports

1·16 Regarding Exports, the applicant company has stated as below:—

"Gaining from experience and research, Ballarpur is able to improve continuously the quality of its paper and increase the number of varities produced and so enter the world market. As demand in the country has to be met first, it is not possible to export large quantities. Nevertheless, Ballarpur has contributed sub-stantially to India's export promotion efforts. Since the early sixties it has been selling paper and stationery overseas — to Afganistan, Iran, Mauritius, Middle East, East Africa and

Far East. Its exports reached an all time high in 1971-Rs. 10·4 million— when the Chemicals & Allied Products Export Promotion Council awarded the company its certificate of Export Recognition Trophy for Outstanding Export Performance. The Government of India has also accorded its recognition to the company as an Export House for Paper and Paper products".

1·17 ·The company's exports during the years 1972-73 and 1973-74 stood at Rs. 29·05 lakhs and Rs. 71·63 lakhs respectively.

Growth of Technical Inputs like R & D Quality Control etc.

1·18 Ballarpur Mills has claimed that "the Research & development Division of Ballarpur has some of the best-equipped laboratories in the line and with excellent co-ordination with the factory side, many processes developed in the laboratories are tried out eventually on plant scale. This has undoubtedly contributed greatly to the improvement in the quality of the paper produced and has also enabled the mills to use a variety of raw materials. The range of paper produced at the Shri Gopal Division is marketed generally under the brand name of 'Sunlit' and the paper produced at the Ballarpur Division under the name of 'Three Aces'. The names have acquired an enviable reputation throughout the country and both ranges are coveted by all those who require quality papers".

1·19 "Research in the Ballarpur laboratories is partly responsible for the introduction of hardwoods as raw material for paper making. Extensive studies have been made of their pulping and bleaching qualities and methods devised for the utilization of spent liquors. There is constant research going on in the laboratories to find out ways and means to improve texture and finish of paper as the proportion of hardwood in the raw materials used gradually increases. In Ballarpur today some 20 different species of hardwood are being used in random mixture".

1·20 "Due largely to the efforts of the research division again, Ballarpur has been able to manufacture many varieties of paper previously imported, like T.D. Loaded Base Paper, Unbleached Absoybent Kraft, Overlay Paper, Twist Wrap, Black Centred Board for playing cards and Security Paper for cheque books. In India the raw materials for making paper are bamboo, hardwood, waste paper, grass, bagases, cotton waste and several varieties of straws and reeds".

1·21 "The Shree Gopal Division in Yamunanagar Utilizes every possible kind of raw material it can lay its hands on basically on account of the efforts put in by R. & D. No where in the world does a paper mill use such a wide variety. Yet, Shri Gopal produces some of the finest printing papers in the country, such as the offset paper. On the other hand, the Ballarpur Division has the distinction of being the first entirely bamboo based paper mill in the world.

CHAPTER II

THE PROPOSAL

Proposed Products

2·01 The Applicant Company's proposal relates to the establishment of a new Works at Gokarna in the State of Karnataka for the manufacture of the following items :—

Items	Quantity (in metric tonnes)	Value (in Rupees)
1. Salt	50,000	15,00,000
2. Gypsum	2,000	40,000
3. Bitterns	40,000	1,20,000

The three items proposed to be produced at the Gokarna Salt Works are claimed to be completely different from each other, being different chemicals.

Solar evaporation of sea water simultaneously produces :—

Common Salt (Sodium Chloride) which has various end uses including human and animal consumption. Ballarpur Mills propose to use it purely as raw material for production of caustic soda at its Karwar Plant.

Gypsum:This is a by-product and is used as a retarder in the cement industry and in the manufacture of Plaster of Paris.

Bitterns: This if processed can yield Chemicals like magnesium and Potassium salts. According to the Salt Commissioner, at present most of the manufacturers are draining bitterns into the sea or throwing it out as a waste product.

Phased Programme

2·02 It was originally proposed to acquire 2120 acres of land at Gokarna for the manufacture of the above items. However, during the course of the public hearing the company's representatives stated that acquired land measuring 1849 acres had already been handed over to the company by the State Government and the company will have to confine its Salt Works to this area only as no more land will be given to the company by the State Government.

The details of the land acquired by the Karnataka Government are as under:—

Village	Area acquired	Higher level area deleted	Net area now acquired
	A.G.A.*	A.G.A.*	A.G.A*
1. Torke	41-19-4	28-28-4	12-31-0
2. Hittalamakki	312-28-4	23-32-4	288-36-0
3. Morba	292-31-0	15-10-0	277-21-0
4. Madanageri	326- 3-2	52-39-2	273-4-0
5. Hiregutti	524-16-8	48-33-8	475-33-0
6. Yemnemadi	171-26-0	20-25-0	151-1-0
7. Balale	19-32-0	14-8-0	5-24-0
8. Middal agaizni	364-2-0	..	364-2-0
	2052-38-2	204-16-2	1848-22-0

*A—ACRES
G—GUNTAS
A—ANNE

Source: Note on Acquisition of lands by Karnataka State Government.

2·03 Ballarpur Mills have submitted the following phased programme for the project:—

Year	Line of Production	Annual Turnover	
		Quantity Tonnage (in M.Tonnes)	Value at Rs. 30 per tonne (in Rs.)
			Rs.
First Year	Salt	6,000	1,80,000
Second Year		15,000	4,50,000
Third Year		25,000	7,50,000
Fourth Year		40,000	12,00,000
Fifth Year		50,000	15,00,000
First Year	Gypsum	Nil.	Nil.
Second Year		Nil.	Nil.
Third Year		1,000	20,000
Fourth Year		1,500	30,000 @Rs 20/-
Fifth Year		2,000	40,000
Fourth Year	Bitterns	30,000	90,000
Fifth Year		40,000	1,20,000

Development of Salt Works according to Ballarpur Mills requires a minimum period of 5 years. It has stated that the Gokarna Salt Works has to be developed from scratch and due to the various legal and procedural hindrances, commencement of work has already been delayed by 3-4 years and it is likely to take 5-7 years more before full production can be achieved at an estimated level of 50,000 tonnes per annum. The above programme has been drawn up by the Company in consultation with its Salt Consultants.

Manufacturing Process

2·04 The Applicant Company proposes to produce salt with the latest methodology known as multiple irrigation method. According to the Salt Commissioner this is the most modern method adopted in the leading salt producing countries of the world. The cost of production is low and the salt obtained is of good quality, clean and crystal white.

Scheme of Finance

2·05 M/s. Ballarpur Mills while submitting its application for esablishment of salt works at Gokarne in the State of Karnataka, gave the following figures regarding the cost of the project :—

(Rs in lakhs)

	1st Year	2nd Year	3rd Year	Total
Earth Work	4.10	4.00	1.20	9.30
Buildings	2.10	2.40	3.00	7.50
Machinery	0.75	3.75	2.50	7.00
Miscellaneous Accessories . . .	3.05	3.05	0.50	6.60
Preliminary & Preoperative Expenses	0·80	0.80	0.80	2.40
Land Cost	30.00	..	..	30.00
Contingencies	1.20	1.00	1.00	3.20
Total	42.00	15.00	9.00	66.00

Source: Applicant Company.

At the time of public hearing it was pointed out that the cost of the project would increase due to inflation in the intervening period marginally by Rs. 4·3 lakhs and that this increase would be referable to cost of plant and machinery and earthwork after set off of provisions for contingencies. The revised estimate of cost is given below :—

	Revised Estimates (in Rupees)
1. Earth Work	13,47,000
2. Buildings	9,50,000
3. Machinery	13,08,000
4. Miscellaneous	1,79,000
5. Preliminary & Pre-operative Expenses	2,42,000
6. Contingency	Nil.
	40.26
	Say Rs. 40.3 lakhs

It has been stated that the estimated cost of project including enhanced cost will be financed entirely out of the internal resources of the applicant company.

2·06 Financial Position of the Company during the last 5 years was as under:—

(Rs./lakhs)

Capital Employed	1970	1971	1972	1973	1974
Net Fixed Assets	835.55	804.20	1,013.87	1,225.10	1,803.52
Working Capital					
Current Assets	1,368.41	1,622.37	1,875.05	2,189.30	2,218.24
Less Current Liabliities	359.09	452.86	689.39	739.25	975.95
Working Capital	1.009.32	1,169.51	1,185.66	1,450.05	1,242.59
Total Capital Employed	1,844.87	1,973.71	2,199.53	2,675.15	3,046.11
Share Capital	557.57	557.57	762.51	762.51	762.51
Reserves & Surplus	1,176.78	1,477.96	1,365.75	1,477.26	2,010.61
Loans	444.37	424.39	668.99	1,279.35	1,381.91
Total	2,178.72	2,459.92	2,797.25	3,519.12	4,155.03
Less Investment Capital work-in-progress etc.	333.85	486.21	597.72	843.97	1,108.92
Capital Employed	1,844.87	1,973.71	2,199.53	2,675.15	3,046.11

Source: Applicant Company.

Surplus

2·07 After payment of taxes and dividend the following surplus was added to Reserves during the last four years :

Year	Amount added (Rs. in lakhs)
1971	301·18
1972	92·73
1973	111·51
1974	533·35
Total	1,038·77

In addition to this amount, a sum of Rs. 653·12 lakhs charged as depreciation was also available for plough back. It was pointed out at the time of hearing that surplus to be ploughed back for 1975 would exceed Rs. 9 crores.

Equity/Debt Ratio of the company during the last four years ranged between 1 : 0·21 to 1 : 0.57, which is within the reasonable limits of 1 :2. These ratios show that there is enough cushion for more borrowings.

Import of Capital Goods

2·08 The Applicant Company has no proposal to import any machinery. It is understood that all machineries are available indigenously.

Employment Potential

2·09 The Applicant Company has submitted that Salt production is a seasonal industry and production would be undertaken only during the period other than the monsoon season, which has a duration of about seven months. The number of persons employed during the production period would be around 400. In addition, there would be about 60 permanent employees looking after the salt works. It was stated at the time of public hearing that to ensure availability of expirienced labour the Company may also have to pay some retention wage to the seasonal employees.

2·10 Ballarpur Mills have justified the project on the following grounds :—

(i) By assuring continuous high grade salt supply to the caustic soda plant, the Company would be able to achieve production, supply and distribution of caustic soda by most efficient and economic means and in such volume and at prices as would best meet the requirements of the Defence of India, home and overseas markets. The plant is situated right next door to the deep water port of Karwar, which is proposed to be developed in the next few years. By having the plant on the west coast near a deep water port, the Company would be able to export caustic soda at competitive prices. The biggest advantage which the Company and the country would have is that it would be able to earn foreign exchange by tapping the West Asian markets by reason of its close proximity to a sea coast and the fact that the freight cost would be much lower.

(ii) The production, supply and distribution would be achieved by most efficient and economical means by reason of availability of salt which would affect the viability of the project and would make its products competitive which would not be so otherwise because of the distance from the consumer markets without any worthwhile means of communication and transportation.

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(iii) The movement of entire requirements of salt from saurashtra by ship to Karwar would result in an enormous consumption of fuel oil and diesel, particularly when the vessels will have to return on empty holds. At times it is difficult to obtain coastal shipping and there is a marked reluctance of ship owners to ply their vessels for salt due to its corrosive nature and as such there is a lesser degree of dependance if the salt works are next door under the control of the company. For this reason also production of caustic soda can be achieved by the most efficient and economical means as would best and serve meet the requirements of defence of India and home and overseas markets.

(iv) By reason of having the salt works at Gokarna, the trade in caustic soda can be organised in such a way that its efficiency is progressively increased, the company being in a position not only to compete effectively in the export market but also providing the consumers caustic soda at competitive prices by off-setting the high cost of production. But for the availability of this salt unit, the Company would not be able to ensure the best use and distribution of the industrial capacity set up for the manufacture of caustic soda at Karwar keeping in view its distinct locational disadvatages. The best use and distribution of men, materials and industrial capacity for caustic soda installed at Karwar can be achieved by having this salt unit particularly in view of the peculiar geographical situation of the caustic soda Plant and the climatic conditions in the region which would hamper movement of salt from any other place to Karwar during monsoon months. The transhipment of the total requirements of Salt from Saurashtra to Karwar would be costly and uneconomic and would throw the economy of the Caustic Soda plant completely out of gear; it would hamper dependa-flow of the basic raw material and would eat up precious foreign exchange by way of consumption of fuel oil and diesel by ships at the same time pushing up the cost of manufacture of caustic soda enormously leading to wasteful expenditure of over Rs. 52 lakhs per annum on this count alone.

(v) By reason of peculiar situation of the cuastic soda plant the Company can effect expansion and improvement in trade of existing markets and would be able to open up new markets if it is assured of supply of salt at competitive prices and this can be best achieved by having the Salt Works which would offset the higher cost of production by providing salt locally at a cheaper price.

(vi) It is necessary for the caustic soda plant to have a steady supply of a vital and basic raw material like salt at prices which would make the ultimate and product viz caustic soda reasonably competitive and this can best be achieved by having this salt unit with the Company. Moreover, quality control considerations are crucial to the manufacturing process of Caustic Soda. This becomes particularly necessary as there always would be a temptation for small salt manufacturers in the area to market their products locally within the State of Mysore without going through quality control measures and installation of expensive machines or removal of impurities as admittedly there is a short supply of slat whithin the State and it gets over 90% of its requirements from neighbouring States. By having Company's own salt works the Company would be able to use the material resources of the community viz. the salt so as to best subserve the common good.

(vii) The establishment of salt works as a complementary unit of caustic soda in the backward region of North Kanara District would also reduce disparities in development between different regions and more especially in relation to areas which have remained admittedly back-ward. There has been virtually no industrial development of North Kanara District and by having an economically viable cuastic soda plant in the area so that the development of the region can be assured. For this purposes, the salt works project is essential. Apart from anything else, they would bring within the State salt industry to meet the requirements at least of its industrial unit locally. Salt works at Gokarna was proposed and conceived right from the beginning by the State Government as an integral part of the caustic soda project at Karwar. The caustic soda plant is located in a notified backward area and has virtually no advantages other than the establishment of a salt works nearby to make the caustic soda plant economically viable. The location of a major captive source of raw material, namely, salt nearby was one of the prime consideration for its location at Karwar. Without the salt works, the caustic soda project would not be able to survive. If there is any other manufacturer of salt, he would not be interested in maintaining a strict quality control or steady supplies to the Caustic Soda plant as common salt of any quality can easily be marketed within the State in view of the fact that this State is importing a substantial part of its requirements from other States and has no indigenous source for meeting the same.

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CHAPTER III

REACTIONS TO THE COMPANY'S PROPOSAL—OBJECTIONS AND SUPPORT

3·01 The proposal of Ballarpur Mills has been objected to by the Chairman, Village Panchayat Torke & Gazani Rakshna Kriya Samiti and Chairman, Village Panchayat, Hiregutti and Shri B.V. Naik, Member of Parliament on behalf of the peasants, whose lands have been acquired.

3·02 The main points of objections are as under:

1. The idea of the transfer of land was mooted ten years back when the land was barren and it was submerged under salt water. Now the land has been reclaimed by constructing solid embankments at a cost of Rs. 2 million by the Government of Karnataka. The land is very fertile for paddy cultivation and gives subsistence to approximately 1200 peasants and more.
2. Ballarpur Mills should be made to acquire only the salt growing land instead of fertile paddy fields.
3. The land under reference is at a distance of 30 miles from caustic soda plant. Nearabout at a distance of 2 miles or less, from these paddy lands are salt works which are century old and extend to about 1,000 acres (the reference is to Sanikatta Salt Works).
4. The acquisition authorities have deliberately acquired land in Block 'B' and not in Block 'A' and this indicates that their action is malafide.
5. More than 2,000 acres of land under water since last ten years are available in Karwar Taluka at Kadwad, Sunkeri, Siddarpur and Makkeri along the Kali River in and are within a radius of 7 to 10 miles from the factory site at Binga.
6. The value of paddy grown in the area is more than that of salt proposed to be produced.
7. Huge quantity of salt is available in Saurashtra, Maharashtra and Madras and as such no purpose will be served by granting licence to the Company.

3·03 Although Village Panchayat, Torke, had originally opposed the proposal, its Chairman subsequently wrote to the Commission that on reconsideration, the Panchayat felt that the proposal of Ballarpur Mills would be, in the long run, beneficial to the public in general and village in particular and therefore they would like to co-operate and assist the Company in finalising their proposal at the earliest.

3·04 In response to the Notice for the Public Hearing, representations have been sent by Village Panchayat Gozani and Village Panchayat Torke and Shri B.V. Naik, Member of Parliament. The objections mentioned in the letters of Shri Naik and Village Panchayat Gozani are almost identical and may be summarised below :—

1. The salt works deny the fundamental right to property to the cultivators in the area and would amount to negation of the Directive Principles of State Policy, inasmuch as it would lead to common detriment and not benefit.
2. The State Government of Karnataka has misused the powers vested in it under the Industries Development Act.
3. The salt works will produce salt whose value will be less than paddy grown at present on the land.
4. Karnataka Industries Development Corporation, a State Public Sector Undertaking, who have obtained the licence for the caustic soda in the first instance are not justified in transferring it to Ballarpur Mills. The proper course for them would have been to surrender the licence so that the present private monopoly firm would have approached *de novo* for a licence on a clean slate.
5. At the time when the land proposed for the salt works was decided to be acquired for manufacturing salt, it was unproductive and submerged under sea water. The conditions have changed since then. The Bundh constructed by the Karnataka Government has brought about material change during the period of past five years and therefore the conditions for the grant of licence for the manufacture of common salt are no longer operative.

6. The land in question was productive for centuries before the year 1950 and remained submerged under sea water for a period of two decades upto 1970. After two decades the *status qua ante* has prevailed and the land has become productive.
7. Keeping in view the constitutional guarantee of equality before the law, it should be ensured that industrial and agricultural interests do not clash and do not hurt each other.
8. Ballarpur Mills have taken over the lands from Karnataka Industrial Development Corporation at a time when the State law on the ceiling on agricultural holdings was to become an Act and, thereby the purport and intent of this legislation was tried to be defeated. This, therefore amounts to conspiracy between the State Government and the licensee monopoly concern to hoodwink the cultivators in the Gokarna Salt Works area and circumvent the law of the land.

3·05 The Village Panchayat Torke has mentioned the following points in its letter of June 2, 1975 :

1. Bundh made by State Government was completed only three years back and prior to this for more than 25 years, no cultivation was possible in this land. The landlords and tenants have, thus, learnt to live without any income from these lands.
2. Even with the Bundh, only one crop in a year is possible in this area and this also is subject to vagaries of monsoon.
3. Income from this one crop is not sufficient to sustain tenants and the landlords and therefore in the Committee's view there cannot be any economic progress in this area without industrialisation. If people are to depend upon income from agriculture only, they will continue to live a hand-mouth existence as they have been doing all these years.
4. The machinery for acquiring the land has already been set in motion and the land has already been transferred to the Karnataka Industrial Development Corporation who have handed over the possession of the same to the Ballarpur Mills in January, 1973. Only the question of payment of compensation remains to be settled and the Commission should use its good offices to impress upon the State Government for immediate payment of adequate compensation and the grant of alternate lands to those whose lands have been acquired.
5. The Ballarpur Mills should absorb most of the able-bodied educated people of this area in its caustic soda plant.

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6. North Kanara District in general and the affected coastal area in particular has always been a backward area and has not attracted industrialists in the past. Ballarpur Mills having come forward to set up their industry against various odds should be assisted so that the backward area develops fast and takes its place amongst the most developed areas in the country.

3·06 During the course of public hearing, Shri B.V. Naik, Member of Parliament, and Shri P.S. Gaonkar, representative of Panchayat of Torke put forth their respective viewpoints for the consideration of the Commission. Nobody else attended the public hearing on behalf of Village Panchayat Torke and Gozani Rakshana Kriya Samiti. Main points mentioned by Shri Naik during the course of the public hearing which mainly relate to the matter pertaining to the acquisition of land and making it available to the Ballarpur Mills were as below :—

1. Two Departments of the Government of Karnataka were simultaneously working at cross purposes, i.e., while the Industries Department was taking action to acquire land for converting it into salt works, the P.W.D. Department of the same Government was constructing a bundh so that the land which has been acquired for salt production, could be used for agricultural purposes.
2. The Mysore State Industrial Investment and Development Corporation was not justified in transferring to Ballarpur Mills its licence for the manfuacture of caustic soda. Similarly, the lands for the manufacture of salt for this caustic soda projects should not have been made available. The State Government was under no contractual obligation to provide such lands to Ballarpur Mills.
3. North Kanara District is deficient in the matter of food and, therefore, it is not correct to divert a portion of the land which is used for agricultural purposes for the manufacture of salt.

4. Only absentee landlords will benefit by this take-over.
5. 'Public purpose' cannot mean depriving a man of his source of livelihood and acquiring his land for making it available to a private concern for producing raw materials for its caustic soda project.
6. The annual value of crop raised in the land proposed for salt works is much more than the value of salt that will be produced on it.
7. The transfer of the project to Ballarpur Mills does not seem justified as it cannot be said that the State Government would not have been in a position to make available nearly Rs. 17-18 crores required for implementing this project.
8. An opinion poll should be undertaken in the area where the lands proposed to be acquired are situated to find out whether the residents of the area are in favour of making available the land for the purposes of salt production.
9. The proposal after sanction would lead to further concentration of economic power in the hands of the house of Thapars.

Shri Naik, in conclusion, prayed that the Company's proposal should be rejected and the land should be allowed to continue with the persons who are presently using it for agricultural purposes.

3.07. Shri P.S. Gaonkar, representative of the Panchayat Torke, supported the Company's proposal. Shri Gaonkar first gave some statistical details about the members of his Panchayat. According to him the members of his Panchayat owned 566 acres and 24 guntas of land in the total area of approximately 1849 acres acquired by the Government and given to Ballarpur Mills. The total number of members affected are 131 out of which 28 are owners and 103 tenants. Shri Gaonkar stated that earlier his Panchayat opposed the takeover of land because they were not clear and sure about many matters such as:—

1. Whether the members whose lands will be acquired will be given any compensation;
2. Whether the affected persons would be getting any alternative lands; and
3. Whether they will be getting any employment opportunities.

With the passage of time all these doubts have now disappeared. The members whose lands are going to be acquired will not only be getting compensation but they will also be getting alternate land under the rehabilitation programme of the Government of Karnataka. The applicant Company has also promised to give preference to the local persons in the matter of employment in the salt works. With these assurances and considering the overall interest of the area as a whole, the members of Torke Panchayat felt that acquisition of their land for salt works will be in their interest.

3.08. Mr. Gaonkar mentioned that in this area only a single crop can be grown and that gives the residents work for nearly 4 months in a year. Salt works, depending upon monsoon, will be in a position to give employment to them for a period of 7 to 8 months. The lands that are proposed to be acquired are not very fertile. According to Shri Gaonkar, these are only second class medium paddy growing lands on which the average yield of paddy comes to 10 quitals per acre. On this basis the average earning per family will hardly work out to Rs. 1 per day. As against this, the Company will be paying to its labour roughly @Rs. 5 per day for 7 months and even taking the whole year as a whole, the average earning per day will be much more. Shri Gaonkar also mentioned that for more than 20 years from 1950 to 1971, the residents of the area have not been cultivating these lands as the lands were mostly under water or that salt water got mixed up with the river water and that made the cultivation of these lands difficult. It is ony for the past two-three years that some cultivation is being done in these lands. Therefore, the residents have been living in this area without depending on these lands for their livelihood and if the same position with the additional benefits referred to earlier is restored, the position will not be worse. Shri Gaonkar also suggested that the Company should develop the production of gypsum which is very essential for cement industry and which is presently in short supply.

3.09 The Government of the State of Karnataka has very strongly supported the proposal the Ballarpur Mills. When the Chairman of the Commission had visited Karwar and the proposed site for the salt works, the State Director of Industries, Shri Saifulla had discussed the matter with the Chairman. According to him, the project for the manufacture of caustic soda and establishment of salt works at Gokarna was originally planned by the M.S.I.I.D.C. However, due to paucity of required resources and technical personnel the idea was given up. The State Government then toyed with the idea of implementing this project in the joint sector with the help of some large industrial group in order to get the requisite technical knowhow and the funds. Unfortunately this idea also did not materialise due to unwillingness of the private sector to enter into a joint venture. Ultimately the State Government decided to recommend this project for Ballarpur Mills with a view to promoting industrialisation in the backward district of Karwar. The two main difficulties in the implementation of the project were that there was no railhead at Karwar and the nearest railhead was 110 miles away. In order to attract Ballarpur Mills, the then Government of Mysore promissed to extend various facilities to the Company for establishment of a caustic soda/chlorine plant in North Kanara district and these facilities included land for salt pans so that cheap salt could be produced to compensate the Company for the other high costs and to make their caustic soda competitive in price.

3.10, Shri Saifulla further stated that the original cost of the project was estimated at Rs. 8 to 10 crores but the actual cost had reached 15 crores due to the extra burden on transporting capital equipment and also for creating the necessary infrastructure for the project. If the Company was not given the facilities to manufacture salt at the nearby place like Gokarna, the whole project, according to the Director of Industries, was going to be absolutely uneconomical. The salt if brought from Suarashtra by sea route would cost about Rs. 140 to 160 per tonne at the factory while the salt produced at Gokarna will not cost more than Rs. 70—80 per tonne. This was one of the incentives which was promised by the State Government to the Ballarpur Mills to attract them to take up such a huge project, costing Rs. 15 crores at such an isolated and backward place.

3.11. It was pointed out by the Director of Industries that egally most of the land in question had already been acquired and transferred to Ballarpur Mills and the whole inquiry regarding the advisability of the transfer was a post-mortem. It was stated that the Stae Government and the Department of Industries were taking necessary measures to see that rehabilitation of the uprooted farmers was done in such a manner that farmers were not put to real loss. As regards the compensation, there were set rules for the compensation and the State Government would see it that the compensation was paid accordingly. As regards allegation about 20,000 families being displaced, it was pointed that the total population which lived on the acquired land was only, 5,558 and out of this 1969 persons were affected and out of this 1969 only 622 persons had stood to lose all their land. It was claimed that the setting of the factory would ultimately result in helping the otherwise backward district and unless the necessary facilities were extended to the Ballarpur Mills, no entrepreneur would be able to run this Rs. 15 crores project profitabily. It was further pointed out that in case the compensation offered to the farmers was not acceptable to them, they could certainly have recourse to the District Courts and High Courts for necessary enhancement if due. The Director of Industries in short requested the Commission to approve the proposal in the larger interest of the economic development of the State of Karnataka and particularly of the Karwar District.

3.12 At the Public Hearing the State Government of Karnataka, was represented by Shri P.S.S. Thomas, Deputy Secretary, Commerce and Industries Department, Government of Karnataka. He placed before the Commission the point of view of the State Government with extreme cogency, lucidity and fairness as below:—

(1) The approach of the State Government in the matter of setting up of the caustic soda plant has been consistent with the goal of development of the backward areas of the State. As will be noticed from the correspondence made by the Then Chief Minister, Shri Veerandra Patil, the State Government had earlier decided to instal a 100 tonnes per day caustic soda/chlorine project itself. This was conceived of because of avilability of lands in the neighbourhood of the project where salt could be manufactured. In his letter dated the 17th May, 1969, the Chief Minister had written to Dr. Triguna Sen, Union Minister for Petroleum & Chemicals, that the project had been decided to be located at Karwar where the salt works was being developed within close distance of the proposed factory location. However, since the project, subsequently, appeared to be highly capital intensive and as the resources of Mysore State Industrial and Investment and Development Corporation were rather limited and the State Government had other priority schemes also, and as Ballarpur Mills agreed to take the entire responsibility for financing the project, the Government decided to allow Ballarpur Mills to implement this project. The resources of the State Government were limited and within those limited resources, the Government had to decide about the priorities. Hydro-electric project and irrigation project would definitely get higher priority for various reasons. Therefore, for project such as is before the Commission for consideration, the State Government thought it appropriate to leave it to a private entrepreneur. It was not a question of the State Government not being able to have funds of the magnitude of 17-18 crores. The question was one of the priorities.

(2) The availability of land for the production of salt to make the caustic soda unit economically viable was absolutely necessary. Since the State Government could not itself undertake the project, it become necessary to acquire land and give it to the Ballarpur Mills who had

agreed to take up this project. Obviously, it would not have been possible for Ballarpur Mills to negotiate with different land owners for acquiring land for their salt project. The acquired land had been handed over to the Company for the sole purpose of making salt and not for using it for any other purposes. Before acquiring land, State Government has taken into consideration all aspects of the problem.

(3) The loss of paddy consequent to acquisition of land was going to be nominal and would not affect the overall availability of food-grains in the area. Besides, under the rehabilitation scheme, which the State Government was considering for the persons who will be displaced, alternate lands would be provided for growing paddy. Mr. Thomas made it clear that it was not obligatory for the State Government to provide alternative lands for lands acquired under Land Acquisition Act, but considering the popular sentiments in this region, the State Government had decided to considered making alternate lands available.

(4) The persons whose lands have been taken over will not only take alternate lands but also get compensation. Normally, it was the practice of the State Government to provide free land under rehabilitation schemes. However, no final decision has been taken in this regard by the State Government so far, but perhaps the lands will be made available to the affected persons free of cost.

(5) Regarding different actions by two different departments of the Karnataka Government as mentioned by Shri Naik, it was explained that the matter relating to construction of bund was taken up much earlier to 1969 when the notification regarding acquisition of land was issued. The bund was, however, completed in the year 1971 and, therefore, growing of agricultural crops was a subsequent phenomenon. Construction of bund and acquisition of land for purposes relating to industrialisation of the backward area of Karwar District could not be said to be two diametrically opposite sections from the side of the State Government, because the two decisions were taken, one after the other, after taking into consideration all the relevant circumstances at different points of time.

(6) On the question whether any other alternate lands can be made available to the Company for the proposed salt works, Mr. Thoms, drew the Commission's attention to the Project Report which was got prepared by Mysore State Industrial Investment and Development Corporation Limited in the year 1969. This Report was prepared by Shri Gurunath, an Expert in salt manufacture. According to this Report, the only suitable land available for salt production was in Kumta Taluk.

(7) On the matter relating to acquisition of lands in 'B' Block and not in 'A' Block, Shri Thomas mentioned that there is no question of any malafide. The land in 'A' Block was already under cultivation when the question of acquiring land was considered by the State Government. At that time, land in Block 'B' was not being used for paddy cultivation as it used to get submerged under sea water. The notification regarding land acquisition was issued by the Government in December, 1968 and it was much after this date (in the year 1971) that paddy was grown in this land. Only two or three crops were grown in this land before land was acquired and given to Ballarpur Mills. Thus, at the time of acquisition, the land which was left out, was a land where agricultural operations were being carried on and the land which was acquired was one which was unsuitable for agriculural purposes.

(8) On the matter of value of paddy *vis-a-vis* value of salt, Mr. Thomas pointed out that it would not be correct to measure the values in arithmetical terms. The acquisition of land for manufacturing salt would lead to economic benefits in many ways and, therefore there can be no comparison between the value of paddy that will be lost becuase of use of land for salt production and the value of salt. However, even on 'arithmetical' basis, the value of salt was definitely going to be more than the value of paddy. According to Mr. Thomas's estimates, the total area of land under cultivation out of 1849 acres acquired by the Government would be approximately 1500 acres. It was a medium quality land and the average yield of paddy per acre was not likely to exceed 10 quintals. The levy price of paddy at present was Rs. 80 per quintal and on that basis the price of 15,000 quintals of paddy would be approximately Rs. 12 lakhs. As against this, value of salt produced would be Rs. 50 to 60 per metric tonne and cost of salt produced at the works would be Rs. 20 to Rs. 30 less. If the f.o.b. price is taken into account on the basis of price charged by Sanikatta Salt Works, f.o.b. price at the rate of Rs. 120 per metric tonne would be 60 lakhs. Apart from this, the multiplier effect of the salt works as a result of start of ancillary industries, down stream industries and catering industries would be immense.

(9) Shri Thomas clarified that Mysore Industrial Investment and Development Corporation had not transferred its licence to Ballarpur Mills. The Ballarpur Mills had got a licence on the basis of its own application. Of course, the project was recommended by Karnataka Government.

(10) On the question of contractual obligation, Mr. Thomas pointed out that the caustic soda project and salt works were considred to be twin projects and the State Government was committed to provide land to Ballarpur Mills for the manufacture of salt.

(11) On the question of absentee landlordship, Mr. Thomas's view was that the presumption that large portions of land in this area were being held by absentee landlords was not correct. The State Government had offered advance compensation for acquisition of this land and only one person opted for such compensation. This indicated that there were no absentee landlords who were likely to be affected by the Land Ceiling Act of the Government otherwise all such persons would have preferred to take compensation from the Government immediately.

3.13 Mr. Thomas summed up his statement by saying that the project was entrusted to Ballarpur Mills taking into consideration all aspects of the matter. The project would definitely be in the interest of Karwar which was otherwise a backward area and no malafides or favouratism was involved in this matter.

3.14 The Salt Commissioner, Jaipur, who is the licensing authority for starting salt works, had discussion with the Commission on the application by Ballarpur Mills. He also sent a written memorandum stating his views on the application. He was also present at the Public Hearing, According to him, when properly developed, the salt works at Gokarna would yield 40,000 to 50,000 tonnes of salt. The salt works at Singach in Gujarat, which the Company was in the process of acquiring, was a developed salt works and its production in 1973 was 92,000 tonnes. According to him, the production from both the salt works, therefore, could be estimated at 1,50,000 tonnes. As against this, the estimated demand, according to the original proposal, was only 1,40,000 tonnes. The Salt Commissioner, therefore, stated that it should be made a condition that the salt poduction at Gokarna and Singach would be solely utilized for captive use by Ballarpur Mills in their down plants producing soda ash or caustic soda and would not be available for use in the country or export outside. The limited capacity for transport particularly railway wagons had to be utilized for movement of salt produced by other manufacturers.

3.15 The other Ministries of the Government of India, had no objection to the proposal of Ballarpur Mills. According to the Ministry of Industrial Development, Ballarpur Mills could not be considered to be dominant in the production of salt but, according to it, the licence for the manufacture of salt should be given to the party only on the condition that the salt production at Gokarna would be for captive use in their own plant and should not be sold in the country or outside. The Department of Economic Affairs, Ministry of Finance, stated that the scheme of finance submitted by Ballarpur Mills was acceptable to them subject to the condition that the shareholding with the promotors' group should not exceed 40%. The Department of Banking, Ministry of Finance, suggested that Ballarpur Mills may be asked to have one or more Directors on its Board of Directors as nominee of the public financial institutions and it was pointed out that this condition was also suggested when Company's earlier application for manufacture of sodium tripolyphosphate was considered. The Department of Company Affairs, Ministry of Law, in its note to the licensing committee regarding the proposal of Ballarpur Mills, had posed some questions. The first is whether Ballarpur Mills should not be asked to bear at least the part of the cost of rehabilitation of the people affected by the acquisition of land for its project. The second is relating to the claim made by Ballarpur Mills while sending a viability study on the caustic soda project to the Ministry of Petroleum and Chemicals. According to the Department of Company Affairs, Ballarpur have asserted that there was already a salt works very near to the proposed site of the caustic soda project and that there were very good possibilities of increasing production of salt in this area. It had further stated that even if the full requirements of salt were not initially available from the areas in and around of the proposed site, it would be convenient to economically bring salt in coastal barges from the salt producing areas of Maharashtra and Saurahstra. The Department has also inquired as to how much of the benefit of the lower cost of production in the finished product would be passed on to the consumers.

CHAPTER IV

EXAMINATION OF THE PROJECT

4.01 It would be pertinent to begin the analysis of the project by a brief reference to its history because it throws light on the relation of the salt works to the caustic soda project and also on the original conception of the caustic soda project vis-a-vis the salt works. The caustic soda project was originally conceived by the Government of erstwhile State of Mysore (known at present as Karnataka) in 1967. The project, as envisaged by the State Government, consisted of a caustic soda plant at Karwar and a salt works in the neighbourhood both within the District of North Kanara. The salt works was obviously proposed for meeting the requirements of the basic raw material viz. salt for the caustic soda plant. Pursuant to the said decision a Company in the name and style of Canara Fertilisers and Chemicals Ltd. was formed. Subsequently the State Government, after discussions with the Planning Commission, decided to implement the caustic soda project in the private sector. This decision stemmed from lack of availability of sufficient funds with the State Government and the suggestion to have the project in the private sector came from the Planning Commission to the State Government. The following extracts from the letter dated 17th May, 1969 addressed by the then Chief Minister of the State Government of Mysore to Dr. Triguna sen, Minister for Petroleum & Chemicals, Mines & Metals, is self-explanatory:

> "You might have been aware that Mysore Government had decided sometime back to install a 100 tons per day caustic soda/chlorine project more particularly for meeting the needs of the State Government itself. The project, after various feasibility studies, has been decided to be located at Karwar (Mysore). A salt works is being developed within close distance of the proposed factory location and electric power would be made available from the Sharavathi Hydro-Electric Project at reasonable rates.
>
> "Initially, the Mysore State Industrial Investment and Development Corporation Ltd., had been chasing the licence for some considerable length of time with the Planning Commission and clerance, in principle, for the project has only recently been obtained with the proviso that MSIIDC associate a private entrepreneur for implementation of the Project.
>
> "In this connection, we have been in touch, for some time past, with several competent private sector entrepreneurs and, after considerable investigation, we have decided that Ballarpur Paper & Straw Board Mills Limited, Ballarpur (a Thapar Group organisation) are best suited financially and organisationally to implement this project.
>
> "We have also given considerable thought to the possibility of the Mysore Government participating financially in the proposed caustic soda/chlorine plant but in so far as the project is highly capital intensive and in so far as the resources of MSIIDC are rather limited and the State Government have other priority schemes as also in so far as the Ballarpur Paper & Straw Board Mills are prepared to take up the entire responsibility for financing this project, we are firmly of the opinion that a letter of intent may be issued directly to Ballarpur Paper & Straw Board Mills Ltd., which will also expedite the implementation of this much required project."

Ballarpur Mills applied for the grant of industrial licence for setting up the caustic soda project in North Kanara District and it was granted this licence and allowed to take over the proposed caustic soda project. It took steps to establish and commission the caustic soda plant for production of 33,000 tonnes per annum and the plant was commissioned only recently i.e. on 30th May, 1975.

4.02 After the decision of the State Government to locate the caustic soda plant in private sector it was envisaged by the State Government that Canara Fertilisers and Chemicals Ltd. would undertake setting up of salt works and the same would be managed through the technical and administrative executives to be nominated by Ballarpur Mills. The arrangement as accepted by Ballarpur Mills was on the following basis:—

(a) That Canara Fertilisers & Chemicals Ltd., would undertake setting up of the salt works.

(b) That the Government of Mysore would acquire land at Gokarna or any other site and that the land so acquired would be leased on a long term basis to Canara Fertilisers on an annual rental equivalent to the amount of interest at a modest rate on the State Government's investment on the acquisition of land.

(c) That loan capital would be obtained from financial instutitions to the maximum possible extent to meet the capital outlay of the salt works and the balance amount needed would be raised in the form of capital of Canara Fertilisers.

(d) That the capital of Canara Fertilisers would be owned majority part by the State Government and minority part by Ballarpur Paper & Straw Board Mills Ltd.

(e) That Canara Fertilisers would manage the salt works through a technical and/or administrative executive nominated by Ballarpur Paper & Straw Board Mills Ltd.,

(f) That salt produced by Canara Fertilisers would be sold to Ballarpur for their caustic soda/chlorine project at cost basis.

Even this arrangement, however, did not come about although Ballarpur Mills had accepted it, by its letter dated 26-3-1970. A copy of this letter is made at Annexure 'D' to the report. The Government of Mysore eventually decided that even the salt works would be owned and run by Ballarpur and by its order dated 24-10-1970 communicated the decision to Ballarpur Mills. The relevant para of that letter, which is para 3, read as follows:

> "An area of about 2000 acres will be acquired for the salt project through the Mysore Industrial Area Development Board. 20% of the cost of acquisition will be paid by M/s Ballarpur Paper and Straw Board Mills Ltd. at the time of taking over of the site from the Mysore Industrial Area Development Board and the remaining in 10 annual instalments".

4·03 According to the orginal scheme the State Government, in the mean-time, had in 1968 issued a Gazette Notification No. C. 132. FDB. 68 dated 13-12-68 for acquisition of approximately 2,000 acres of land in Kumta and Ankola Talukas for the setting up of salt works. On 2nd Feb, 1972 Mysore Industrial Area Development Board entered into an agreement with Ballarpur Mills whereby the Board undertook to take all necessary steps to acquire the ownership and possession of land to make the sale and transfer in the manner contemplated free from encumbrances etc, and then to sell to the company the said land. The recitals in the preamble to this agreement are also quite explicit and read as follows:

> "WHEREAS the Government of Mysore is interested in the Industrial Development of the State of Mysore and to this end had offered several facilities to attract outside entrepreneurs to the State;
>
> "AND WHEREAS on the recommendation of the said State Government, the Company has been granted an Industrial Licence by the Government of India for the establishment of a new undertaking in North Kanara District, Mysore, for the manufacture of Caustic Soda, Liquid Chlorine, Hydrochloric Acid and related chemicals;
>
> "AND WHEREAS at the invitation of the State Government the Company has agreed to set up in a suitably phased manner a Caustic Soda/Chlorine-based chemical complex in Mysore inter alia on the condition that the State Government shall acquire for the Company's Chemical Complex and Salt Project an area of about 2000 acres of suitable land through the Board;
>
> "AND WHEREAS vide Mysore Government Order CI 54 FMI 70 dated 24th October 1970, the Governor of Mysore was pleased to confirm that about 2000 acres of land would be acquired through the Board for the Salt Project of the Company; 20% of the cost of acquisition to be paid for by the Company at the time of taking over of the site from the Board, and the remaining in ten equated annual instalments;
>
> "WHEREAS the State Government by Gazette Notification No. CI 32 FDB 68 dated 13-12-1968 declared Torke, Hitlamakki, Morba, Madanagere, Balale, Hiregutti, Yennemade and Middle Gazni villages, Kumta and Ankola Tks. North Kanara Dist. as an Industrial Area in the State for the purposes of the Mysore Industrial Areas Development Act and whereas the Board to generally promote and assist in the rapid and orderly establishment. growth and development of Industries in the said Industrial Area, has decided to acquire about 2000 acres of land in this Industrial Area;
>
> "WHEREAS the Company has applied to the Mysore Industrial Areas Development Board to make available about 2000 acres of land more particularly described in the schedule hereto annexed and hereinafter referred to as the "SAID LAND" after acquisition under the provisions of the Mysore Industrial Areas Development Act 1966 (Mysore Act No. 18 of 1966) (hereinafter referred to as "THE SAID ACT") for the purposes of establishing a Salt Project;

"WHEREAS the Board after being satisfied that the acquisition of the said land is needed for the purpose referred to above has consented to cause the provisions of the said Act being put in force in order to acquire the said land as part of an Industrial Area and make available the said land to the Company on the Company agreeing to the terms and conditions hereinafter appearing;

"AND WHEREAS PURSUANT to the said Government Order, the Board will acquire about 2000 acres of land, more particularly described in the Schedule hereto (hereinafter referred to as "The Land"), and it is intended to record the terms of transfer of the same to the Company".

On completion of the acquisition proceedings, the Government of Karnataka actually acquired and handed over 1,849 acres of land to Ballarpur Mills on 5th January, 1974.

4·04 It is clear from the history of the caustic soda project and from the background against which the lands were transferred to Ballarpur Mills that from the very beginning salt works was identified as an integral part of the caustic soda project even when it was to be started in the public sector and that when the caustic soda project was transferred to the private sector, the understanding was that there will be salt works in the neighbourhood of the caustic soda plant and the State Government had made a commitment to Ballarpur Mills that lands for the salt Works would be acquired for that. It was, so to speak an inducement for Ballarpur Mills to set up their caustic soda plant in an industrially backward area like Karwar District. When a State Government is a party to such an arrangement, it is of little consequence that the arrangement is not in contractual form and is crystalised in a Government order. The fact of the understanding, however, cannot be questioned firstly because of the specific Government order dated 24-10-1970 and secondly because of the recitals in agreement dt. 2-2-1972 between Ballarpur Mills and Mysore Industrial Area Development Board. It has, therefore, to be accepted that the setting up of the salt works was a part of the package deal between the State Government and Ballarpur Mills and this package included not only the setting up of the caustic soda plant but also the setting up of the salt works nearby.

4·04A It is necessary at this tage to refer to the viability study on the caustic soda project submitted by Ballarpur Mills to the Ministry of Petroleum and Chemicals. The Company had indicated that there was already a salt works very near to the proposed site producing about 12,000 to 18,000 tonnes of salt per year and there were very good possiblities of increasing the production of salt in this area. It had gone on to assert that even if the full requirements of salt were not initially available in the areas in and around the proposed site, it would be quite convenient to economically bring salt in coastal barges from the salt producing areas along the coast of Maharashtra and Suarashtra. The Deptt. of Company Affairs had drawn attention of the Licensing Committee to this assertion in the viability study. Analysis made by the Commission, however, clearly shows that the salt works already existing near the site of the plant viz., Saniketta Salt Works, was not capable of meeting any of the requirements of the caustic soda plant. The viability study on the other hand clearly refers to good possiblility of increasing the production of salt in the area i.e. in the new salt works to be started. It must also be noted that the reference to Saurashtra and Maharashtra salt is only in contingencies where the full requirements of salt were not intially available from the areas in and around the proposed site. Even after the Gokarna salt works has been fully established the full requirements of salt for the plant would not be available from it and Ballarpur will have to draw upon Saurashtra sources for the balance of the requirements. Initially also i.e. till the Gokarna salt works reaches its full capacity, Ballarpur will have to rely on Suarashtra sources. It cannot, therefore, be suggested that the averments made in the viability study are in any manner inconsistent with the claim now put forward on behalf of the Ballarpur Mills. There is, therefore, no ground for modifiying the conclusions arrived at in the earlier paragraph on this score.

4·05 The next point to be examined is whether apart from the original conception and/or commitment made by the State Government, the salt works at Gokarna was essential for making the whole of the caustic soda plant of Ballarpur Mills economically viable. The cuastic soda plant is located at Karwar District on the West Coast of Karnataka and was approximately 160 Kms. from Hubli the nearest meterguage railhead 340 Kms. from Miraj, the nearest broad-guage railhead and 4 Kms. from the Karwar port. Import of salt from Saurashtra would involve loading of salt on meter-guage wagons, then its transhipment at Viramgam to Broad Guage further transhipment to meter-guage at Miraj and unloading at Hubli. From Hubli salt would have to be transported by trucks to the factory about 160 Kms. from the railhead. According to Ballarpur Mills the cost of salt delivered at Karwar by rail-cum-road from Saurashtra would be Rs. 200 per tonne as worked out below:

Cost of salt including Cess & Bagging charge/tonne Ex-Salt Works	35.00
Freight charges/tonne (by road) upto Moti Khavadi (Railway Station)	15·00
Handling & Loading charges etc. per tonne	3·00
Freight/tonne inclusive of transhipment charges of Rs. 7 per tonne at Viramgam & Miraj & Rs. 3.50 per tonne at each point from Moti Khavadi to Hubli (By rail)	110·90
Handling & loading charges at Hubli	3·00
Freight/tonne by road from Hubli to Karwar	32·00
	198·90
	Say Rs. 200.00.

4·06 The other alternative was to bring salt from Saurashtra by sea route. The distance by sea route between Saurashtra and karwar is 1050 Kms. For moving salt by sea it would have to be removed by trucks and trolleys to the jetty and then loaded by conveyors on barges. It is then to be transported to steamers which anchored approximately 10/12 Kms. in the sea from the jetty. It would then go to Karwar where the same operations will be repeated. According to Ballarpur, the cost of salt by sea route would be Rs. 160 per tonne; the same is worked out as below:—

	Cost per MT Rs.
Salt price paid to M/s. Singach Salt Works	26·00
Transportation by ship ex-Singach to Karwar paid to M/s. Moghal Lines	92·06
Barges Freight paid to M/s. West Coast Handling & Stevedores	10·10
Discharging Salt from Barges at Jetty paid to M/s. West Coast Handling & Stevedores	1·16
Port Handling charges paid to Port Officer, Karwar	1·01
Transportation from Port to Site paid to Contractor Mr. P.R. Naik	10·55
Dredger charges paid to State Port authorities, Karwar	2·33
Port overtime, Survey & Misc. expenses	0·15
Salt Handling Expenses (details enclosed)	12·49
Transportation of salt by Copany's trucks	0·23
Loss of Salt in handling tranpsort & Storage @ 1.5% (on Rs. 156.08)	2·34
Administrative Overhead Expenses @ 0.·5% (on Rs 158·42)	0·79
Provision for special levy imposed by State Port Trust w.e.f. 15-4-75	0·20
	159·41
	Say Rs. 160.00 per tonne

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The details of the salt handling expenses included in the amount of Rs. 160 are as under:—

Interest	5·62
Supervision	0·42
Depreciation on installation at port etc.	2·54
Operational electric power	0·24
Repairs & Maintenance	1·27
Security (watch & ward)	0·39
Tigar charges	2·01
	12·49

As against these figures, the cost of production of salt at Gokarna is put at Rs. 55 per tonne on the following basis:

Cost of produce (weighted average)	23·25
Transportation by truck to Karwar	20·00
Loading, unloading and stocking	7·00
Cess and royalty	4·50
	54·75
	Say Rs. 55.00 per tonne

According to these calculations even if the salt is brought by sea, it will cost Rs. 105 per tonne more than if it would be produced at Gokarna. The requirements of salt for production of caustic soda varies from factory to factory and, according to the report of the Tariff Commission dated 23rd August, 1967, the range of variation is between 1.70 to 2.31 tonne of salt for one tonne of caustic soda. It would, therefore, be safe to take the average of 2 tonne of salt for one tonne of caustic soda for estimating the probable consumption. The requirements of salt in the various plants of Ballarpur Mill currently are 70,000 tonnes for Karwar, 21,000 tonnes for Ballarpur and 14,000 tonne for Yamunanagar. When the additional capacities are installed, the requirements would be 1,05,000 tonnes at Karwar, 21,000 tonnes at Ballarpur and 14,000 tonnes at Yamunanagar. Ballarpur Mills are likely to get 90,000 to 1,00,000 tonnes of salt from Singach Salt Works in Saurashtra and the capacity of Gokarna Salt Works is put at about 50,000 tonnes. If this quantity of salt is available for caustic soda plant at Karwar, it would pay Rs. 55 to Rs. 60 per tonne in place of Rs. 160 per tonne according to the calculation of Ballarpur. There would, therefore, be a saving of about 52.5 lakhs which otherwise it would have to pay for briging salt from Saurashtra.

4.07 At this stage it is difficult to be precise about the calculations of the probable cost at Gokarna Salt Works. At one stage, in the discussions of the project, the Salt Commissioner felt that the estimate of cost of transport of salt from Saurashtra, given by Ballarpur Mills was on the high side. It was, however, pointed out on behalf of Ballarpur Mills that because Karwar Port was an undeveloped port and more time was taken in clearing the salt from the ships there, the Indian coastal Conference had fixed freigth rates for cargoes destined for Karwar even higher than that for the cargoes destined for more distant places like Cochin and Calcutta. There can, however, be no gainsaying the fact that large economies will be secured by Ballarpur producing its own slat at Gokarna to the extent that it can produce its requirements and although saving may not be as high as 52 lakhs, it would be of substantial amount. We also do not think it advisable to refer to any rigid price standard as for example Rs. 75 per tonne of salt attributed to the Report of the Tariff Commision on Caustic Soda. As a matter of fact we find that the report of Tariff Commission dated 23rd August, 1967 scrupulously refrained from fixing any standard price of salt which could be linked with the standard price of caustic soda but that does not in any manner detract from the position that availabiity of salt in the neighbourhood of caustic soda plant would result in considerable economies in the manufacture of caustic soda at Karwar.

4·08 Ballarpur Mills have given calculations about the possible financial results, first on the assumption that salt will be available from Gokarna and secondly on the assumption that salt will not be available from Gokarna and will have to be brought from Saurashtra. The estimates of cost of production of caustic soda and the profitability statements on the basis of these assumptions are given in annexure 'E' to this report. On the first assumption, on the production of 33,000 MTs of caustic, the estimated profit is Rs. 41.25 lakhs which works out to 2.4% on capital employed which is taken at 17.1 crores. On the second assumption, on the same production i.e. 33,000 MTs there is a loss of Rs. 11.2 lakhs. Once again these estimates are essentially estimates. Caustic Soda production has just begun and the salt works is still in the stage of blueprint. The calculations moreover are based on production of 33,000 tonnes of caustic soda. Ballarpur Mills has already been given a letter of intent for expanding the capacity to 49,500 tonnes. Under the recent policy of allowing manufacturing units to increase the production upto 25% of their sanctioned capacity, the production can be increased by another 12,500 tonnes. This would no doubt increase the profitability and reduce the risk of loss. There is also the possibility of effecting exports at higher prices than the price ruling in the local markets. There is likelihood of commercial sales of by-products viz bitterns and gypsums. On the other hand, even when the saltworks produces according to its maximum capacity, it would not be able to give more than 50,000 tonnes and Ballarpur Mills will have to procure its further requirements from Saurashtra. The extent to which, therefore, the salt works at Gokarna would be able to contribute to the profitability of the caustic soda plant, would be limited to the difference between the price of 50,000 tonnes of salt as brought from Saurashtra and the cost of prodution of 50,000 tonnes at Gokarna. Even making allowance for the margin of error in all these estimates, there is clearly some basis for the claim put forward by Ballarpur Mills that but for the salt works at Gokarna, the profitabiltiy and, therefore, the economic viability of the caustic sod a plant would be in jeopardy. The Tariff Commission in its report referred to earlier, have allowed a return of 15% on the capital employed which had been taken as equivalent to the sum of the average net fixed assets and working capital assessed at five months cost of production excluding depreciation. According to the calculations of Ballarpur Mills, even on the assumption that Gokarna salt is available to it, net return would be 2.4% As stated earlier, even after making allowance for margin of error, the margin of profit even if salt is available from Gokarna, will be far short of reasonable margin provided for by the Tariff Commission. It may be mentioned in passing that in the present context there is no question of passing any benefit from the saving of cost to the cosumer as is suggested by Department of Company Affairs. It is a question of just being able to keep on an even keel. It, therefore, seems to us that even from the point of view of economic viability of the caustic soda plant, regardless of other historical considerations, and the commitment made by the State Government, setting up of salt works in the neighbourhood of the caustic soda plant was necessary to make the caustic soda plant economically feasible It is pertinent to point out that other established producers of caustic soda like Tata Chemicals Limited, Dharangdhara Chemicals Works Ltd., Saurashtra Chemicals Limited.' Mettur Chemicals Ltd.' Centruy Chemicals Limited have also their salt works which, no doubt, add to their profitability. In the case of Ballarpur Mills they have in addition to reckon with initial locational disadvantages because Karwar in an industrially backward District and it is, therefore. all the more reason that some neutralising of the disadvantages was made possible by economies in the price of basic raw material by setting of the salt works.

4.09 The next question is whether the salt works, if it was necessary as an ancillary to the caustic soda plant, should be situated at Gokarna and nowhere else, in the surrounding areas, The objectors have referred to areas of land under water in Karwar Taluka, Talwa at Kadwad, Sunkeri, Siddarpur and Makkeri along the Kali river and are within a radius of 7 to 10 miles from the site of the Caustic soda plant. They have also referred to the Sanekatta Salt Works which are very near the caustic soda plant. On the other hand the State Government and Ballarpur Mills both have relied on the Project Report for a major salt works at Gokarna submitted by Industrial Development Consortium, a firm of industrial and engineering consultants to Mysore State Industrial Investment and Development Corporation Ltd., Bangalore. This report was submitted in February 1969 to M.S.I.I.D.C. Ltd., which was a Mysore State Undertaking. It was submitted at a time when Ballarpur Mills was not even granted licence to set up the caustic soda plant. It indicated the site at Gokarna as the only proper site for setting up of a salt works and it gave the following reasons for its recommendations:—

"There are very few locations along the coast line where a sizeable extent of flat land forming a single block is available for development of the salt industry, Small patches of about 50 to 100 acres are available in a few locations. The only place were there is a single block of over 3000 acres (of fairly even level clay land) is in Kumta Taluk. This site is between Kimani in the South West, Madanagiri-Kumta Road in the East, Sanikatta in the North and Tadri Port in the West. The revenue particulars of the area described here are furnished in Annexure-II. This site offers in two blocks of about 1000 and 2,000 acres a contiguous area for the development of major salt works based on sea water as the main raw material.

"This site offirs the following facilties for the development of a major salt works in Mysore Coast:

(a) Situated very close to the Tadri Port to which the Salt Works area is connected by a natural creek transport of the salt by boats will be possible at economical cost.

(b) The site has on its Eastern boundry a good black top road connecting Gokarna to Kumta This road will provide o access from the salt works to all important marketing centres requirings salt.

(c) The site is within 30 miles from the location being considered for the setting up of a caustic soda factory. This will facilitate supply of salt required for the caustic soda industry from the new Salt Works at economical transport cost.

(d) A small size Salt Works has been functioning in Sanikatta for the past several decades Workers familiar with the practices in Salt cultivation are available nearby.

(e) Electric power lines and telephone service lines are already in existence quite close to the site.

(f) Facilities to drain off storm water during the monsoon are available through the existing backwater creeks and river Aganashini."

Apart from Sanniketta, therefore, there was no possible location suggested in the project report. Saniketta's production was on a very small scale and was of quality which was only fit for human consumption and unfit for industrial use. The Chairman of the Commission had visited Saniketta Salt Works and it was found that the Saniketta Salt Manufacturing Society was manufacturing salt in 432 acres of land. Their production during the last four years ranged from 10,000 to 17,000 MTs. According to its own officers their salt was inferior in quality and was not suitable for caustic soda factory. They were selling their salt in the local market and did not have any surplus salt to sell to caustic soda factory even if the caustic soda factory was prepared to refine the salt manufactured by the Society.

4·10 Salt of very high standard of purity with the minimum of soluble impurities such as magnesium and the sulphates is requird for use as raw material in the electrolytic process for the manufacture of caustic soda. The requirements of salt for chemical industries as fixed by I.S.I. are given below:—

Characteristic	Requirement for	
	Gr. I	Gr. II
1. Sodium Chloride, percent by weight, Min.	99·5	98·5
2. Matter insoluble in water, percent by weight Max.	0·05	0·2
3. Matter soluble in water (other than sodium chloride) percent by weight max.	..	1·3
4. Calcium salts percent by weight Max.	0·03	0·2
5. Magnesium salts percent by weight Max.	0·01	0·2
6. Sulphates percent by weights Max.	0·2	0·5
Iron compound parts per Million Max.	10·0	..

It was not possible to secure such salt without proper capital equipment including washeries. This requires considerable capital equipment apart from the cost of land. There was no possibility of Saniketta ever being able to supply the needs of the caustic soda factory at Karwar. There had to be a search, therefore, for an appropriate site and according to the Project Report, Gokarna was the best and only possible site. Ultimately, as stated earlier, out of 3000 acres proposed in the project report, only 2,200 acres were earmarked and out of this 2200 aceres, only 1,849 acres were actually acquired and made available to Ballarpur Mills. In the circumstances Saniketta could not have met the needs of the caustic soda plant and the site at Gokarna was the only site suitable for setting up the salt works.

4·11 It was suggested that circumstances which prevailed when Gokarna was recommended were quite different from circumstances which prevailed when Gokarna was actually selected, because by the time it was selected paddy was grown on the lands which were now proposed to be converted into salt works. There are two aspects of this issue. First is the issue whether Gokarna was the best available site and that issue has been discussed in the earlier paragraph. The second aspect is that, whether in view of the fact that some paddy has been grown in the lands reconsideration was necessary about the advisability of using the lands for salt works. It is not as if the Government of Mysore was in two minds and that on the one hand it was planning to utilise the lands at Gokarna for cultivation of paddy while on the other hand it was toying with the idea of using the land for salt works. The original idea was to make the land fit for cultivation of paddy and in furtherance of this idea the construction of the bund was started. From 1968 onwards, however, the idea of setting up a salt works as an ancillary to the caustic soda plant took germ. Although the bund was finished only in 1970 the idea of setting up the salt works was pursued and it was felt, as the representative of the State Government clarified, at the public hearing, that the bund would be useful also for the salt works and the cost thereof would be covered by the amount to be received from Ballarpur Mills to a certain extent. The question, therefore, that remains now is whether from a purely economic point of view the land would be better utilised by cultivation of paddy or by construction of salt works. It has been claimed by the objectors that the value of the paddy grown would be much higher than the value of the salt proposed to be produced. We are unable to accept this claim. The representative of the Torke Panchayat which at one time opposed the proposal but subsequently relented in its stand against the proposal, stated that the lands were essentially second class lands, that they were capable of producing only one crop a year, that at the most 10 quintals of paddy per acre per annum could be produced, that about Rs. 260/- per acre had to be incurred as incidental expenses, and that this left a very small amount per acre with the family growing the crops. It was also pointed out by him that land had become cultivable only from 1970 and that 20 years before that the lands were not at all cultivable so that the people had not become used to expect livelihood from these lands. The representative of the State Government also pointed out that out of the total lands acquired for the salt works only 1500 acres were cultivable or actually cultivated, that maximum yield per acre was 10 quintals per acre per annum, that levy price for paddy was Rs. 80 per quintal and that on that basis the total value of production would be about Rs. 12 lakhs per annum. The assessment made by the representative of the State Government seems to us to be a realistic one and it would be safe in our view to assume that the value of paddy produced can be about Rs. 12 lakhs. Against this, on utilisation of full capacity the salt works was expected to produce 50,000 tonnes of salt. This would be worth Rs. 25 to 30 lakhs if only cost of production is taken into account. If the market price of edible salt (which is inferior in quality to industrial salt) prevailing in the area is taken into account the value of the salt would be double, i.e. Rs. 50 to 60 lakhs. If the alterntive price for having similar quantities from Saurashtra is taken into account the saving to the company would be an additional Rs. 20 lakhs. There is also the prospect of sale of bye products like Gypsum and Bittuns. Even on a conservative estimate of the sale price and quantities of these products, additional receipts of about Rs. 2 lakhs can be budgeted for. In other words, if the added value to the gross national product is taken into account, the contribution by the salt works would far outweigh the contribution by paddy. Moreover, as pointed out by the State Government representative it will not be correct to make what he called arithmetical comparisons of outputs. The creation of salt works is an integral part of an over all scheme of industrialisation of a backward area. The impact is to be measured by its effect on the main industry, i.e. caustic soda, and by the ancillary catering and down-stream industries which were expected to develop in course of time. Taking all these aspects into consideration from a purely economic point of view the use of the land for salt works in preference to its use for cultivation purposes was clearly calculated to bring about a more economic and efficient use of the scarce resources of the community.

4·12 We are not unmindful of the cost in terms of human hardship and suffering caused and which is likely to be caused further to the owners of the lands which are acquired and particularly persons who till these lands. To a certain extent these stem from the acquisition proceedings, which strictly speaking fall outside our purview. It will be open to the displaced persons to agitate for higher compensation if they find that the compensation granted was not adequate. We were assured by the representative of the State Government that as a special case persons deprived of their lands from this area were to be rehabilitated in nearly areas and most probably no cost of rehabilitation will be recovered from the displaced persons. There will be no need for Ballarpur Mills to contribute to the cost of rehabilitation. We were also assured by the representatives of Ballarpur Mills that preference would be given by them for purposes of employment in the undertaking, whether in the seasonal cadre or in the permanent cadre, to the displaced persons and the members of their families. The representative of the Torke Panchayat claimed that as a result of the setting up of the salt works the per capita income of the persons displaced was bound to rise. But apart from monetary considerations there are sentimental reasons for which the persons are reluctant to leave the land tilled by them, and there is no doubt in our minds that the tillers of these lands were definitely sacrificing something which cannot be adequately compensated in money. On the other hand the sacrifice would lead to amlioration of an industrially backward area and the community at large occupying that area today and in future was bound to benefit by their sacrifice. While appealing to them for making this sacrifice for the common good, we request both the State Government and the Ballarpur Mills to keep to their assurances and set up a machinery for effective implementation to the satisfaction of the persons displaced.

4·13 Having taken the view that it was desirable to set up a salt works at Gokarna it was necessary to gauge its impact on the salt industry in the country. Both the Salt Commissioner and the Department of Industrial Development were anxious to ensure that the production of salt by Ballarpur Mills, whether in the proposed salt works at Gokarna or at Singach, should be used as a raw material in their caustic soda plants and should not be sold to outside customers locally or for export. As a matter of fact, the Salt Commissioner himself can impose and does impose such condition before issuing licences to the new producers and there is no reason why such condition should not be imposed by him while issuing licence to M/s. Ballarpur Mills. At any rate, even before according permission under section 22(3)(b) the Government of India can impose this condition as an additional safeguard. On behalf of Ballarpur Mills it was pointed out that there was no danger of their being in surplus after meeting their captive requirements. According to it the requirements of salt in 1975 were 70,000 tonnes for Karwar, 21,000 tonnes for Ballarpur and 14,000 tonnes for Yamunanagar, and in the subsequent years the requirements would be 1,05,000 tonnes, 21,000 tonnes and 14,000 tonnes respectively. The Singach salt works is not likely to produce more than 1 lakh tonnes while the Gokarna works when it reaches its maximum capacity would produce 50,000 tonnes. There is possibility of wastage of about 7% in handling and this would make the total production of salt by Ballarpur Mills more or less equal to its captive requirements. It was also pointed out that Ballarpur Mills might be able to expand its production of caustic soda by 25% of its installed capacity in view of the revised government policy, and this in its turn would raise its demand for salt produced by its own salt works. Ordinarily therefore, according to Ballarpur Mills there was no possibility of any surplus remaining after meeting the requirements. The only possibility of accumulation of surplus stocks was when due to bottleneck in transport salt could not be transported and it had necessarily to be disposed of in such contingencies the permission of the Salt Commissioner was necessary because without his permission the wagons would not be available. Be that as it may. In order to ensure that no part of the production of Ballarpur Mills has an adverse impact on the local market for salt or for that matter in the export market, it is necessary that a condition should be laid down that salt produced in its salt works will be used only for captive consumption and that any surplus that may remain would be disposed of in accordance with the directions of the Salt Commissioner.

Scheme of Finance

4.14 M/s. Ballarpur Mills proposes to meet the capital cost of salt works and the working capital out of its internal resources. The Department of Banking, Ministry of Finance has proposed that a nominee or two of the public financial institutions which have given loans to the concern should be represented on its Board of Directors. As far as the present proposal is concerned we do not see any warrant for imposing this condition. The debt equity ratio is very much in favour of Ballarpur Mills. There is considerable scope for borrowing additional funds. On the other hand, considerable amounts are ploughed back from the annual profits. In the immediately preceding year the surplus ploughed back was Rs. 5 crores. In the current year it is expected to be more. As against this loans from Central financial institutions as on the date of hearing amounted to Rs. 1.34 crores, while loan from the State financial institutions was Rs. 46 lakhs. There was also an interest free loan of Rs. 1·19 crores under the Maharashtra Standing Package Scheme of Incentives for Industries. All this taken together were much less than the Company's own resources. On the strength of the present proposal, therefore, we do not recommend any insistence on the applicant's having a nominee or nominees of public financial institutions on their Board.

4·15 The share of the promoters in the shareholding of Ballarpur Mill is 31%. It is well within the limit of 40% indicated by the Department of Economic Affairs, Ministry of Finance. The Finance required for the project is very small being approximately 70 lakhs spread over a period of five years. The applicant company does not propose to raise any funds from outside sources. There is, therefore, no need for calling upon the promoters to part with any portion of their shareholdings.

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CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5.01 We have analysed the project bearing in mind the submissions of the applicant, objectors the representatives of the State Government and the representatives of the Departments of the Government of India. Our conclusions on this analysis can be summarised as under:—

(a) From the very beginning the salt works was identified as an integral part of the caustic soda project even when it was to be started in the public sector.

(b) When the caustic soda project was transferred to the private sector, the understanding was that there will be a salt works in the neighbourhood of the caustic soda plant and the State Government had made a commitment to Ballarpur Mills that lands for the salt works would be acquired for that.

(c) Setting up of salt works in the neighbourhood of the caustic soda plant was necessary to make the caustic soda plant economically feasible or viable.

(d) The site at Gokarna was the only site suitable for setting up the salt works.

(e) The use of the land at Gokarna for salt works in preference to its use for cultivation purposes was clearly calculated to bring about a more economic and efficient use of the scarce resources of the community.

(f) The State Government and Ballarpur Mills should set up machinery for the effective implementation of the following assurances to the displaced persons:—

  (i) The persons displaced from the lands acquired will be rehabilitated in alternative lands in areas as near the acquired lands as possible.

  (ii) In the matter of employment of persons in the salt works, whether in the permanent cadre or in the seasonal cadre, preference will be given to the displaced persons and the members of their families.

Ballarpur Mills should give an undertaking that if any surplus salt remains at any of its salt works after meeting its captive requirements, it will dispose of the surplus in accordance with the directions of the Salt Commissioner.

5·02 We have to make our recommendations based on our findings summarised earlier. The recommendations have to be in accordance with the criteria laid down in section 28 of the MRTP Act. We must point out two basic limitations of our terms of reference: firstly the caustic soda project was already sanctioned by the Government and is in fact a fait accompli; we have to examine the possibility of salt works in the background of this fait accompli. Secondly the acquisition of land for the salt works was also a fait accompli. The grievances arising from the acquisition can be ventilated in a different forum. We have to confine ourselves to the proposed salt works and its justifiability under the criteria laid down in section 28. In the light of these criteria as applied to the findings arrived at by us earlier, we recommend the approval of the proposal under section 22(3)(c) of the MRTP Act. The creation of the salt works would achieve the production and supply of caustic soda and salt by most efficient and economical means. It will ensure the best use of the land available at Gokarna and the industrial capacity at Karwar. It would enable the applicant to compete effectively in the existing local markets and in the opening of new markets both at home and abroad. It would regulate the control of material resources of the community viz. land to subserve the common good and it would help to reduce the disparities in development between different regions and more especially in relation to an area which has remained markedly beckward. As far as concentration of economic power is concerned, quantitatively there will be no increase in the concentration because Ballarpur is going to draw on its own internal resources. Qualitatively there will be a measure of vertical integration but it will not result in foreclosing of any existing market. A new market is created and the source of meeting that new market is created along with it. It is true that the existing suppliers of salt would be deprived of the additional market; but in the light of economic considerations detailed in Chapter IV, both from the point of the applicant and from the point of view of community in general, the balance of advantage lies in favour of this vertical integration. In effect, therefore there is no detriment resulting. We accordingly recommend that the proposal made by Ballarpur Mill should be approved. This approval should be subject to the condition that any surplus production of salt remaining after meeting the captive requirements of caustic soda plant, should be disposed of only in accordance with the directions of the Salt Commissioner and that Ballarpur Mill and the State Government should set up machinery to ensure that the displaced persons are rehabilitated in other alternative sites and in the matter of employment preference is given to the displaced persons and members of their families.

(Sd/.)
(JUSTICE J. L. NAIN)
Chairman

(Sd/.)
(H.M. JHALA)
Member

NEW DELHI,
30-6-75

ANNEXURE A

Monopolies and Restrictive Trade Practices Commission

Names and Addresses of the Objectors & Supporters

Objectors:

1. Beeranna Nagappa Gowda,
   Armude, Torke P.O.
   Kumta Taluka N.K. District.

2. Narayan Krishnappa Gowda,
   Madangeri P.O.
   Kumta Taluka-N.K. District.

3. Ramchandra Liuganna Naik,
   Hittalmakki, Torke P.O.

4. Timmappa Nagappa Harkantra,
   Hoskatta, Torke, P.O.

5. Gopal Krishna Naik,
   Toreke P.O.

6. Bente Huliappa Gowda,
   Devanna, Torke P.O.

7. Venkatramana Krishna
   Goankar, Torke, P.O.

8. B.V. Naik,
   Member of Parliament,
   32, Western Court,
   New Delhi.

9. The Chairman,
   Village Panchayat,
   Gozani Rakshana Kriya Samiti,
   Post Hiregetti, Taluk Kumta,
   District North Kanara,
   Karnataka.

Supporters

1. Toe Chaiaman (Seri V.K. Gaonkar)
   Village Panchayat, Torke,
   P. O. Torke,
   Kumta Taluk, N. K. Distt.

ANNEXURE B

Monopolies and Restrictive Trade Practices Commission

Name of the Persons who were Present at the Public Hearing

The following persons attended the public hearing at 11.00 A.M. on 17-6-1975 in the case of M/s. Ballarpur paper and Straw Board Mills Limited:—

Applicant Company:

1. Dr. L.M. Singhvi,
   Senior Advocate.
2. Shri Shailendra Sarup,
   Advocate.
3. Shri S.N. Tandon,
   Vice President.
4. Shri H. C. Dass,
   Constituted Attorney.
5. Shri Avtar Rai.
   Assistant Manager.
6. Shri M.M. Gurunath,
   Salt Expert.
7. Shri K.I. Oomman,
   Asstt. Project Manager.

Government Representatives

1. Shri K.V.S. Murthi,
   Director,
   Planning Commission, New Delhi.

2. Shri P.S.S. Thomas,
   Deputy Secretary,
   Commerce & Industries Deptt.,
   Govt. of Karnataka,
   Bangalore.

3. Shri R. Ramanujam,
   Under Secretary,
   Ministry of Industrial Development,
   New Delhi.

4. Shri K.L. Sahni,
   Salt Commissioner.
   Jaipur.

Objectors:

1. Shri B.V. Naik, M.P.
2. Shri P.S. Gaonkar,
   Representative of Panchayat of Torke,
   District N. Kanara.

Members of Public

1. Shri G.K. Rajagopalan,
   Agent,
   M/s. Karamchand Thaper & Bros (P) Ltd.
2. Shri D.V. Anand,
   M/s. Karamchand Thaper & Bros. (P) Ltd.
3. Shri Anil P. Anand,
   Secretary,
   Jagatjit Cotton Textile Mills Limited,
   New Delhi.
4. Shri Viswanath,
   Reporter,
   United News of India.
5. Shri S.Venkatachalam,
   Financial Express.
6. Shri P.S. Anant Haraman,
   Economic Times.

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ANNEXURE B — (contd.)

M.R.T.P. Commission

The following persons attending the public hearing in the case of M/s. Ballarpur and Straw Board Mills Limited which was continued on 18th June, 1975:—

Applicant Company

1. Dr. L.M. Singhvi,
   Senior Advocate.
2. Shri Shailendra Swarup,
   Advocate.
3. Shri H.C. Das,
   Constituted Attorney.
4. Shri S.N. Tandon,
   Vice President.
5. Shri K.I. Oomman,
   Assistant Project Manager.
6. Shri Avtar Rai,
   Asstt. Manager.
7. Shri M.M. Gurunath,
   Salt Expert.
8. Shri N.A. Krishnan.

Objectors

1. Shri B.V. Naik,
   M. P.
2. Shri P.S. Gaonkar.

Govt. Representatives

1. Shri P.S.S. Thomas,
   Deputy Secretary,
   Commerce and Industries Department,
   Govt. of Karnataka,
   Bangalore.
2. Shri K.L. Sahni,
   Salt Commissioner,
   Jaipur.

Members of Public

1. Shri K.K. Mehta,
   D-193, Defence Colony,
   New Delhi.
2. Shri Vishwanath,
   Reporter,
   United News of India.

ANNEXURE C

Value of Assets of Interconnected Undertakings

S.No.	Name of the Undertakings	Value of assets (Rs. in lakhs)
1	2	3
1.	English Indian Clays Limited	42·45
2.	Kulu Valley Development Co. Ltd.	1·40
3.	Karamchand Thapar & Bros. Pvt. Ltd.	436·12
4.	Indian City Properties Limited	165·52
5.	Jagatjit Cotton Textile Mills Ltd.	910·92
6.	Oriental Coal Company Limited	823·40
7.	United Colliaries Limited	175·91
8.	Bharat Starch & Chemicals Limited	888·81
9.	Deoria Sugar Mills Limited	129·17
10.	Karamchand Thapar & Bros. (Coal Sales) Limited	683·56
11.	Karamchand Thapar & Sons Limited	99·37
12.	Modern Agencies Limited	118·89
13.	New Seven Sugar & Gur Refining Co. Ltd.	17·75
14.	Shree Sitaram Sugar Co. Ltd.	154·83
15.	Standard Refinery & Distillery Ltd.	146·64
16.	Tentulia Khas Collieries Limited	43·46
17.	Shree Sadul Textile Limited	198·86
18.	Ballarpur Paper & Straw Board Mills Limited	4258·36
	Total	9295·42

ANNEXURE D

COPY

March 26, 1970

The Secretary to the Government of Mysore
Commerce and Industries Department
Vidhana Soudha
Bangalore
MYSORE.

Dear Sir,

SUB : Caustic Soda Project.

We refer to the discussions which our Chariman, Shri L.M. Thapar and the undersigned had with you and the other officials of the State Government in regard to the various important issues required to be settled as a pre-requisite for the setting up of the caustic chlorine plant. We thank you, the Director of Industries, the Chairman, Mysore State Electricity Board and the Chief Engineer, Public Works Department, for the kindness and courtesy extended to us and this letter will confirm our discussions with you all on the 20th and 21st March, 1970 in Bangalore.

We pointed out that it was a condition of the Letter of Intent issued to us by the Government of India that we submit necessary proposals for the import of capital goods within a period of 6 months and while we were taking necessary steps to submit within the specified period details of the equipment to be imported, we were extremely keen that the physical implementation of the project was taken up without any delay. In the circumstances we requested the State Government to settle as soon a possibe and in any case within the next few months the following issues :—

(1) *Supply of Electricity :*

We indicated that our requirements of power would be in the neighbourhood of 18000 KW and we would be utilising the energy at a load factor of over 85% and a power factor of minimum 90 per cent. We drew your attention to the fact that electric powers represented approximately 35% of the cost of production and consequently had to be treated as raw material for the manufacture of caustic soda and chlorine. We, therefore, requested that :—

- (a) A concessional power rate should be offered to us and while we would be willing to receive the power at 110 KWA we would like the Govt. to consider our request that the transformers needed at the factory site for stepping down this power are also installed by the Electricity Board.
- (b) That the power rate settled as above should be inclusive of all rates, duties, cesses and charges and should remain fixed for the first 15 years and not be subject to any revision.
- (c) That revision in the power rate after the initial period of 15 years should be at intervals of 5 years and should not exceeds 7½ per cent of the rate prevalent for the previous 5 years.

(2) *Establishment of Salt Works :*

We were informed that the Government had issued a preliminary notification for 3500 acres of land in the Karwar area to be utilised for setting up of a salt works. Approximately 1000 acres of this land had since come under cultivation and would no longer be available at reasonable prices. The salt works, therefore, would have to start with remain limited to approximately 2200 acres of land. A copy of the project report prepared for the Mysore State Industrial Investment and Development Corporation Limited by Industrial Development Consortium of Bangalore for the establishment of salt works at Gokarna was handed over to us. It was expected that the salt works covering an area of 2200 acres would involve a capital outlay of approximately Rs. 80 lakhs which would be inclusive of the value of land. It was generally felt that the implementation of salt project should be on the under noted lines :—

- (a) That Canara Fertilizers & Chemicals Ltd. would undertake setting up of the salt works.
- (b) That the Government of Mysore would acquire land at Gokarna or any other site and that the land so acquired would be leased on a long terms basis to Canara Fertilizers on an annual rental equivalent to the amount to interest at a modest rate on the State Government's investment on the acquisition of the land.

(c) That loan capital would be obtained from financial institutions to the maximum possible extent to meet the capital outlay of the salt works and the balance amount needed would be raised in the form of capital of Canara Fertilizers.

(d) That the capital of Canara Fertilizers would be owned majority part by the the State Government and minority part by Ballarpur Paper & Straw Board Mills Limited.

(c) That Canara Fertilizers would manage the salt works through a technical and/or administrative executive nominated by Ballarpur Paper & Straw Board Mills Limited.

(f) That salt produced by Canara Fertilizers would be sold to Ballarpur for their caustic chlorine project at cost plus basis.

We understood to carefully study the project report prepared by Industrial Development Consortium and submit concrete proposals for the consideration of the State Government generally based on the aforesaid broad principles agreed upon during our meetings on 20th and 21st March.

(3) *Water Supply:*

We indicated our requirements of water at 1½ lakh gallons per hour and various proposals for organising supply of water for the factory were considered. The Chief Engineer P.W.D. agreed to carry out an immediate on the spot study and submit his report as to the manner in which water supply could be organised.

(4) *Selection of Site*:

Based on a join study carried out by Krebs & Cie (India) Pvt. Ltd. and Industrial Development Consortium the location of the mill at a suitable site in Karwar area was considered. It was decided that the selection of the exact site would depend upon the final arrangements decided upon by the State Government for supply water. It was agreed that the site proposed in the aforesaid joint study may have to be shifted a few miles depending upon the method and source of water supply ultimately decided upon. It was further decided that Ballarpur would send their representatives to examine the Karwar area and taking all factors into consideration including the source and method of water supply decided upon the best site for the project.

May we now request you to kindly consider our aforesaid requests favourably. As soon as the Chief Engineer, P.W.D. formulates his plan for water supply, we shall visit Bangalore once again for discussions with you all. We would once again like to point out that it is of utmost importance that decisions on these pre-requisites on the setting up of the plant are taken as soon as possible to enable us to physically take up implementation of this scheme.

Yours faithfully,

For Ballarpur Paper & Straw Board Mills Ltd.
for Karam Chand Thapar Bros. Private Ltd.

(Sd/-)
M.L. ZUTSHI
MG. Agents.

ANNEXURE — E

The Ballarpur paper & Straw Board Mills Ltd. (Karwar Division)

PRODUCTION : 33,000 M.T.

Estimated cost of Production of Caustic Soda Lye for the period July 1976 *to June* 1977

Particulars	Unit	Input per tonne of NAOH	Rate per Unit Rs.	Cost per tonne Rs.
1. *Raw Materials*				
Salt	MT	1·9	76·25	144·88
Lime	KG	80	0·30	24·00
2. *Direct Conversion Expenses:*				
A. Materials				
Caustic Soda	KG	19	1·83	34·77
Sodium Carbonate	KG	21	1·30	27·30
Barium Carbonate	KG	19	2·21	41·99
Hydrochloric Acid	KG	13	0·10	1·30
Mercury	KG	0·35	100·00	35·00
Graphite	KG	3·37	38·00	128·06
B Services & Utilities:				
Water	K.Litt.	110	0·18	19·80
Power	KWH	4000	0·005	220·00
Steam	MT	0·06	46·00	2·76
C. Wages & Salaries				81·82
D. Repairs & Maintenance				163·04
E. Selling Expenses				19·25
3. *Indirect Conversion Expenses*				
(a) Depreciation				435·91
(b) Insurance				21·21
(c) Mills Overheads				6·06
(d) H. O. Expenses				29·16
(e) Interest				90·91
COST OF PRODUCTION				1599·22
1. *Raw Materials*				
Salt	MT	1·9	160·00	304·00
Lime	KG	80	0·30	24·00
2. *Direct Conversion Expenses:*				
A. Materials				
Cuastic Soda	KG	19	1·83	34·77
Sodium Carbonate	KG	21	1·30	27·30
Barium Carbonate	KG	19	2·21	41·99
Hydrochloric Acid	KG	13	0·10	1·30
Mercury	KG	0·35	100·00	35·00
Graphite	KG	3·37	38·00	128·06
B. Services & Utilities				
Water	K.Lit.	110	0·18	19·80
Power	KWH	400	0·055	220·00
Steam	MT	0·06	46·00	2·76
C. Wages & Salaries				81·82

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ANNEXURE E — (Contd.)

The Ballarpur Paper & Straw Board Mills Ltd. (Karwar Division)

PRODUCTION : 33,000 M.T.

Estimated Cost of Production of Caustic Soda Lye for the period July 1976 to June 1977

Particulars	Unit	Input per tonne of NAOH	Rate per Unit Rs.	Cost per Tonne Rs.
D. *Repairs & Maintenance*				163·04
E. *Selling Expenses*				91·25
3. *Indirect Conversion Expenses*				
(a) Depreciation				435·91
(b) Insurance				21·21
(c) Mills overheads				6·06
(d) H.O. Expenses				29·16
(e) Interest				90·91
COST OF PRODUCTION			Rs.	1758·34

Profitability Statement

Statement A

(50,000 tonnes of Salt from Gokarna and balance from Saurashtra).

1. Cost of Production		Rs. 1600 P/tonne
2. Selling Price		Rs. 125 P/tonne
3. *Capital Employed*	*Crores*	
(i) Investment on Plant and Machinery	15·50	
(ii) Working Capital based on Tariff Commission Formula i.e. 5 months cost of production after deleting depreciation amount	1·60	Rs. 17·10 Crores
Profit on 33,000 tonnes production		Rs. 41,25,000
Profit on Capital Employed		2·4%

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Statement B

(Without taking into account Salt from Gokarna)

1. Cost of Production	Rs. 1759 P/tonne
2. Selling Price	Rs. 1725 P/tonne
3. Investment on Plant and Machinery (including Working capital) (5 months cost of production)	Rs. 17.10 Crores
4. Profit/Loss (per annum)	Rs. 11.22.000 (Loss)

NOTE

Thus it would be seen that the return on Capital Investments as per Tariff Formula is ony 2.4% as against 18% normal return even when Gorkarna Salt Works is established. Without Gokarna Salt Works this Unit will show recurring loss and the Unit will never be viable.

No. 2/5/74-M (III)

GOVERNMENT OF INDIA

MINISTRY OF LAW JUSTICE & COMPANY AFFAIRS
DEPARTMENT OF COMPANY AFFAIRS
SHASTRI BHAVAN, 5TH FLOOR, 'A'

BEFORE THE CENTRAL GOVERNMENT

In the matter of an application under section 22 of the Monopolies & Restrictive Trade Practices Act, 1969.

AND

In the matter of proposal of M/s. Ballarpur Industries Ltd. for establishment of Salt Works at Gokarna in the State of Karnataka.

M/s. Ballarpur Industries Ltd. (formerly Ballarpur Paper & Straw Board Mills Ltd.) (hereinafter referred to as "the applicant Company") made an application dated 21-1-1974 (received in this Deptt. on 1-2-1974) under section 22 of the Monopolies & Restrictive Trade Practices Act, 1969 (hereinafter referred to as "The Act") seeking approval of its proposal for establishment of a Salt Works at Gokarna in the State of Karnataka for manufacture of the following items with a capacity noted against each:—

	Annual capacity
(i) Salt	50,000 MT
(ii) Gypsum	2,000 MT
(iii) Bitterns	40,000 MT

The cost of the project was estimated at Rs. 66 lakhs (Land—Rs. 30 lakhs, Earth work and building—Rs. 16·80 lakhs, Machinery and miscellaneous goods—Rs. 13·60 lakhs, Contingencies and other expenditure—Rs. 5·60 lakhs). The project cost was proposed by the applicant Company to be met entirely from its internal resources.

2. The applicant Company is registered under section 20(a) of the Act and belongs to Thapar group of companies. The issued and subscribed capital of the applicant company is Rs. 762·71 lakhs divided into 1,47,490—9·3% Redeemable Cumulative Prefernce shares of Rs. 100/- each (Rs. 147·94 lakhs) 61,52,159 Ordinary shares of Rs. 10/- each (Rs. 615·22 lakhs) and 125 Fractional Coupons of Rs. 5/- each. It is interconnected with 17 other undertakings of the group. The value of its assets (Rs. 42·6 crores) together with the value of assets of the interconnected undertakings aggregate to Rs. 92·95 crores.

3. The proposal was published by the applicant Company in the "Capital" dated 6-12-1973 and "Amrit Bazar Patrika" dated 20-9-1973. Objections against the proposal were received from the Chairman, Village Panchayat, Torke and Gozani Rakshana Kriya Samiti; Post Hiregutti and also from the Chairman, Village Panchayat, Hiregutti. The main grounds of their objections were that (a) the acquisition of land by the State Govt. for the proposed salt works would render a number of peasants landless; (b) there was already a Salt Works in the close vicinity of the Company's Caustic Soda Plant; and (c) huge quantity of Salt was available in Saurashtra, Maharashtra and Madras and as such no purpose would be served by granting licence to the Company for establishment of the proposed Salt Works at Gokarna.

4. On the basis of information available, the Central Government came to the conclusion that no order under section 22(3)(a) of the Act could be made in this case without further enquiry by the MRTP Commission. Accordingly in exercise of the power conferred by clause (b) of sub-section (3) of section 22 of the Act, the Central Government referred the proposal of the applicant Company to the MRTP Commission (hereinafter referred to as "the Commission") for enquiry and report.

5. In its report, the Commission recommended approval of the proposal of the appliant Company subject to certain conditions. A copy of the Commission's Report dated 30-6-1975 was supplied to the applicant Company and to such of the objectors as had disclosed their interest either before the Central Government or before the Commission and desired to have it.

6. An opportunity of being heard in terms of section 29 of the Act was given to the applicant Company and to all the objectors who had lodged their objection to the Central Government or to the Commission during the latter's enquiry. Of the objectors invited to attend the hearing, only Shri B.V. Naik, M.P. and representatives of Village Panchayat, Hiregutte and Village Panchayat, Torke, attended the hearing. The village Panchayat Torke, which had initially objected to the proposal, changed its stand before the Commission and supported the applicant Company's proposal. The other objectors did not avail of the opportunity to attend the hearing.

The representatives of the applicant Company conveyed their acceptance to the conditions in so far as these related to it as suggested by the Commission in its report. They further agreed that the shareholding of the Thapar Group which was about 47% including the beneficial holdings would be brought down to 40% as already agreed to by them in connection with their proposal for manufacture of Sodium Tripolyphosphate. Shri B.V. Naik, one of the objectors present at the hearing, sought an adjournment without ascribing any reasons but his request could not be acceded to as it would have caused considerable hardship and expense to all other persons who had already assembled for the hearing after having travelled long distances. He and the representatives of Village Panchayat, Hiregutte, did not make any other submissions on the proposal of the applicant Company though they continued to remain present at the hearing. The representative of the Village Panchayat, Torke, strongly supported the proposal.

7. The applicant Company has been licensed to establish a Caustic Soda Plant at Karwar in the State of Karnataka for manufacture of 49,500 tonnes per annum of Caustic Soda. The proposed establishment of a Salt Works nearby was intended to provide a source for steady supply of a vital and basic raw material, namely, salt. The caustic soda project was originally conceived by the State Government of Karnataka to be undertaken by Canara Fertilizers and Chemicals Limited. Subsequently, on account of lack of sufficient funds, the State Government decided to transfer the project to the applicant Company. From the very beginning, the Salt Works was identified with and formed an integral part of the caustic soda project. When the project was handed over to the applicant Company, the understanding was that there would be a Salt Works in the neighbourhood of the caustic soda plant and this was a sort of inducement to the applicant Company to put up this caustic soda plant in an industrially backward area. The State Government has already acquired over 1,840 acres of land and handed over the possession thereof to the applicant Company for establishment of the proposed Salt Works. By having its own steady source of quality salt, which is a basic and vital raw material for production of caustic soda, the applicant company would be able to make its project economically viable and feasible. The applicant Company has already established caustic soda units at Ballarpur and Yamuna Nagar. The present requirements of the applicant Company for salt for all these three units was estimated at about 1,05,000 tonnes per annum which was likely to increase to 1,40,000 tonnes per annum when full capacity was installed. The applicant Company has recently acquired a Salt Works at Singach in Gujarat which has a capacity of producing about 1 lakh tonnes of Salt per annum. The proposed salt works at Gokarna would yield about 50,000 tonnes per annum of Salt. The total production of these two salt works would be just sufficient to meet the Company's captive requirements for all the three units. Any excess production would not be sold or exported by the Company except in accordance with the directions of the Salt Commissioner. Bitterns and gypsum are by-products. According to the Salt Commissioner, it should be possible to produce approximately one tonne of bitterns and 5% of gypsum with the recovery of one tonne of salt. State Government of Karnataka has also strongly supported the proposal of the applicant Company.

8. The use of the land at Gokarna for salt works in preference to its use for cultivation purposes is calculated to bring about a more economic and efficient use of the scarce resources. As regards the hardships that would be caused to the tillers by the acquisition of land, a provision is proposed to be made that in the matter of employment, preference shall be given by the company to the displaced persons and the members of their families. The State Government had held out assurance before the MRTP Commission that it had already initiated necessary steps for rehabilitation of displaced persons in other alternative sites, and, as such no specific condition to this effect was proposed to be incorporated. The manufacture of Salt is not covered by First Schedule to the Industries (Development & Regulation) Act and as such no licence under that Act is required to be obtained. The applicant Company would, however, be required to take licence from the Salt Commissioner.

9. Keeping in view the relevant facts and circumstances of the case including the recommendations of the Commission and the view-points put forth by the representatives of the applicant company and the objectors, the Central Government is satisfied that it is expedient in the public

interest to accord approval to the proposal of the applicant Company subject to the conditions stipulated in the order hereinbelow:—

ORDER

The Central Government in exercise of its powers conferred to it by the clause (c) of sub-section (3) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 read with section 54 thereof, hereby accord its approval to the proposal of M/s. Ballarpur Industries Ltd. (formerly Ballarpur Paper & Straw Board Mills Ltd.) for establishment of a Salt Works at Gokarna in the State of Karnataka for the manufacture of 50,000 tonnes of Salt, 2000 tonnes of Gypsum and 40,000 tonnes of Bitterns per annum subject to the following conditions:—

(i) The shareholding of the Directors, their relatives and associates and that of the interconnected undertakings, their directors, relatives and associates shall be brought down to 40% within a period of one year from the date of approval of the Company's present proposal or the date of the approval of its proposal for expansion of its capacity for manufacture of STPP from 10,000 to 24,000 tonnes, whichever is earlier.

(ii) Any surplus production of Salt remaining after meeting the captive requirements of Caustic Soda plants of the company shall be disposed of only in accordance with the direction of Salt Commissioner.

(iii) The company shall give preference to the persons displaced by the acquisition of lands and the members of their families in the matter of employment in its caustic soda project as well as Salt Works.

This approval shall not be construed as conveying any approval of the Central Government that may be required under any other provisions of Law.

(Sd/-)

(M.C. VARMA)

Deputy Secretary to the Government of India

NEW DELHI,
28th February, 1976

REPORT UNDER SECTION 22 (3) (b) OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969 IN CASE OF THE BIRLA JUTE MANUFACTURING COMPANY LIMITED, CALCUTTA

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CHAPTER 1

INTRODUCTION

Reference to Commission for Inquiry and Report

1.01 The Birla Jute Manufacturing Company Ltd. submitted an application under Section 22 of the Monopolies & Restrictive Trade Preactices Act, 1969 to the Department of Company Affairs for the establishment of a Cement Clinker Plant at Patratu, District Hazari Bagh (Bihar). This application was referred by the Central Govrnment for inquiry and report *vide* their letter dated 19th January, 1973 to the Monopolies and Restrictive Trade Practices Commission under Section 22(3)(b) of the Monopolies & Restrictive Trade Practices Act, 1969.

1.02 The Company in its application dated *nil* in Form II as prescribed under Monopolies and Restrictive Trade Practices Rules, 1970, stated that the proposed unit would be a proprietary concern of the Birla Jute Manufacturing Company Ltd.

1.03 The date for the submission of the report by the Commission to the Central Government in this case was first extended to 18th July, 1973, for the following reasons:

(a) The applicant Company had not by then submitted its Projected Cash Flow Statement for the period during which the project is likely to be set up.

(b) The applicant Company had *vide* its letter dated 30th March, 1973, addressed to the Secretary, Department of Company Affairs, amended para 8A of its application under Section 22 of the Monopolies & Restrictive Trade Practices Act, 1969 and stated that for the limited purpose of the disposal of the present application, it might be assumed that the applicant Company is interconnected with twenty-five other Companies mentioned in the afforesaid letter. In view of the fact that the applicant Company desired the Commission to proceed on the assumption that it is interconnected with twenty-five Companies referred to earlier for the limited purpose of the disposal of its application under enquiry, the Commission had to write to all these companies requiring them to file their comments/objections, if any, to the above proposition.

1.04 The date for the submission of Commission's report to the Central Government had to be further extended upto 31st October, 1973 as the applicant Company's reply to the various queries made by the Commission was received in the Commission's Office only on 28th June, 1973 and the matters raised therein required further clarifications. Moreover, the applicant Company, by its letters dated 5th July, 1973 and 16th July, 1973 had asked for public hearing to be fixed in its case in the third week of August, 1973.

Purpose and scope of interconnection study

1.05 As mentioned in para 1.03 above, the applicant Company had under its letter dated 30th March, 1973 addressed to the Secretary, Department of Company Affairs amended para 8A of its application under Section 22 of the Monopolies & Restrictive Trade Practices Act, 1969. This was done as a consequence of the interconnection enquiry which was undertaken by the Director of Investigation at the instance of the Commission and the hearings which took place before the Commission in that connection. The circumstances leading to this enquiry as well as its results have been discussed briefly in the succeeding paras.

1.06 The Central Government had referred the applications of M/s. Kesoram Industries & Cotton Mills Ltd., M/s. Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd., M/s. Hindustan Aluminium Corporation Ltd. and M/s. India Linoleums Ltd. to the Commission for inquiry and report. The aforesaid companies had not admitted interconnection *inter se* or with any other companies excepting their own subsidiaries in terms of Section 2(g) of the Monopolies & Restrictive Trade Practices Act, 1969, although these companies, according to the Industrial Licensing Policy Inquiry Report, belonged to the Larger House of Birlas. Further, many of the industrial products for the manufacture of which these companies had made their applications were also being manufactured by some other Birla Companies.

1.07 The question of interconnection is a very vital question for determining whether an undertaking together with its interconnected undertakings is a dominant producer in any commodity or product. This is the reason for which Section 26 of the Act requires all interconnected undertakings to register themselves with the Government. The Commission, therefore, considered it essential to go into the question of interconnection of the aforesaid companies with certain other companies in the so-called Birla House. Such a study was also considered necessary for ascertaining at least in an approximate way the degree of concentration of economic power that the applicant Companies, together with their interconnected Companies, enjoyed. It was, therefore, initially decided to go into the question of interconnection of the following ten selected companies (including the applicant Companies) and the Director of Investigation was directed on 21st December, 1971 to undertake the study:—

1. M/s. Kesoram Industries & Cotton Mills Ltd.
2. M/s. Orient Paper Mills Ltd.
3. M/s. Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.
4. M/s. Hindustan Aluminium Corporation Ltd.
5. M/s. Century Spg. & Wvg. Co. Ltd.
6. M/s. Mysore Cements Ltd.
7. M/s. Birla Jute Mfg. Co. Ltd.
8. M/s. Jiyajeerao Cotton Mills Ltd.
9. M/s. Sirpur Paper Mills Ltd.
10. M/s. Hindustan Motors Ltd.

1.08 The Department of Company Affairs in May 1972 referred the application of M/s. Century Spinning & Wvg. Co. Ltd. under Section 21 of the Act to the Commission for inquiry and report. As a result of the preliminary enquiry by the Commission into this application the Commission decided to include two more companies for the purpose of interconnection study viz., M/s. Bharat Commerce & Industries Ltd. and M/s. Zuari Agro Chemicals Ltd. The Central Government referred the application of M/s. Birla Jute Mfg. Co. Ltd. under Section 22 of the Act to the Commission for inquiry and report on 19th January, 1973. The entire interconnection study was entrusted to the Director of Investigation.

1.09 In view of the fact that the Director of Investigation does not have any powers of summoning the books of accounts/documents, the Commission issued summons under Section 12 of the Act to the selected Companies calling for production of certain documents. The Companies were to be deemed to have complied with the summons if they furnished the requisite information. Some of these companies questioned the relevancy of the information for the purpose of the inquiry before the Commission and raised several legal contentions. These legal contentions led to several personal hearings before the Commission and three writ petitions before the Delhi and Calcutta High Courts which have since been dismissed. Apart from some earlier summons under Section 12 of the Act, a summons was issued to M/s. Birla Jute Mfg. Co. Ltd. in the case of M/s. Kesoram Industries & Cotton Mills Ltd. on 18th December, 1972, seeking some information. In compliance to this, the Company in its letter dated 18th January, 1973 submitted that the information asked for by the Commission is not relevant for the purpose of the enquiry in question. The Company, however, asked for a personal hearing before the Commission in this matter for making its further submissions.

Plea by the applicant Company for assuming interconnection

1.10 During the course of the hearing before the Commission on 8th February, 1973, the representative of the Company, Shri B.P. Khaitan, submitted that the Company is prepared to state for the purpose of its enquiry that the Commission may assume interconnection between M/s. Birla Jute Mfg. Co. Ltd. and M/s. Kesoram Industries & Cotton Mills Ltd. and their connected companies. The Commission passed an interim order on 28th February, 1973, stating that it was not possible for the Commission to proceed on the basis of any assumption for the purpose of submitting its report to the Central Government. The petitioner Company was, however, at liberty to amend its application under Section 22 in the form prescribed under the Monopolies & Restrictive Trade Practices Rules, 1970, so as to state the names and addresses of all the interconnected undertakings. The Commission stated that in view of the fact that interconnection involves other undertakings as well, the applicant Company may also file with the Central Government their letter of consent on the question of interconnection. The final hearing in this case took place before the Commission on 18th March, 1973. The representative of the Company stated that the Company is willing to amend its application under Section 22 of the Monopolies & Restrictive Trade Practices Act, 1969 filed before the Central Government in the manner indicated by the Commission. So far as the question of filing letters of consent from other undertakings which would become interconnected for the limited purpose of the disposal of this application is concerned, it was submitted that the Commission may directly write to such companies on the subject.

Amendment of application in form II by applicant Company

1.11 As a result of the above hearing, M/s. Birla Jute Mfg. Co. Ltd. wrote to the Department of Company Affairs on 30th March, 1973, amending paragraph 8A of the application under Section 22 in regard to its interconnected undertakings on the following lines:

Considering the provisions of law, the applicant Company is not interconnected with any company except those mentioned above. However, purely with a view to facilitate and expedite the disposal of the application the applicant Company agrees for the limited purpose of disposal of the present application, that it may be assumed that the applicant company is interconnected with the following companies:—

1. Kesoram Industries & Cotton Mills Ltd.
2. Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.
3. Hindustan Aluminium Corporation Ltd.
4. Jiyajeerao Cotton Mills Ltd.
5. Century Spg. & Mfg. Co. Ltd.
6. Sirpur Paper Mills Ltd.
7. Orient Paper Mills Ltd.
8. Mysore Cements Ltd.
9. Hindustan Motors Ltd.
10. Bharat Commerce & Industries Ltd.
11. Bally Jute Co. Ltd.
12. Birla Cotton Spg. & Wvg. Mills Ltd.
13. National Engineering Industries Ltd.
14. Sutlej Cotton Mills Ltd.
15. Zuari Agro Chemicals Ltd.
16. Bharat Produce Co Ltd.
17. Birla Bombay (P) Ltd.
18. Birla Brothers (P) Ltd.
19. Birla Gwalior (P) Ltd.
20. Birla Consultants (P) Ltd.
21. Birla Buildings Ltd.
22. Eastern India Services & Marketing Co. Ltd.
23. Punjab Ginning & Pressing Co. Ltd.
24. Shree Services & Trading Co. Ltd.
25. Sutlej Cotton Mills Supply Co. Ltd.

A copy of this letter was addressed to the Commission. The Commission wrote to all the 25 Companies which, according to the amended application of the applicant Company, were to be treated as interconnected with it for the limited purpose of the disposal of this application. These companies were asked to give their consent to this proposition or alternatively to file their objection, if any, by 27th April, 1973. Barring M/s. Zuari Agro Chemicals, no other company has denied assumption of interconnection or raised any objection in this regard.

Director's report on Inter-connection

1.12 The material so far made available to the Commission has been analysed by the Director of Investigation who has submitted a detailed report to the Commission on 11th May, 1973. His broad conclusions are:—

(a) M/s. G.D. Birla, R.D. Birla (since deceased), B.M. Birla, B.K. Birla, G.P. Birla, K.K. Birla, M.P. Birla, S.K. Birla, Adiya Vikram Birla and Ashok Vardhan Birla and their associates namely S/shri D.P. Mandelia and K.G. Maheswari constituted a group within the meaning of Section 2(g) of the Monopolies & Restrictive Trade Practices Act.

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(b) The Members of the group are controlling the affairs of the following companies in various ways:—

1. M/s. J.C. Mills.
2. M/s. Gwalior Rayon.
3. M/s. Kesoram Industries.
4. M/s. Birla Jute.
5. M/s. Orient Paper Mills.
6. M/s. Century Spinning.
7. M/s. Hindustan Aluminium.
8. M/s. Mysore Cements.
9. M/s. Zuari Agro Chemicals.
10. M/s. Hindustan Motors.

In addition, 38 companies mentioned in Annexure I which are also controlled/managed by the same group of persons would be interconnected with the aforesaid 10 companies. Twentyfour (24) subsidiaries of the above mentioned companies would also become interconnected. Thus in all 72 companies would become interconnected. A full list of these 72 companies is given in Annexure II.

1.13 The Commission has carefully considered the submissions contained in the report dated 11th May, 1973 from the Director of Investigation. We must say that inspite of the concerted non-cooperation from the above mentioned group of companies, the Director's report has revealed very interesting evidence to show that in each of the big companies, important decisions were invariably taken only by members of the Birla family and/or the other members of the group viz., S/s. D. P. Mandelia and K. G. Maheshwari. The Boards of Directors of these Companies have indicated their approval long after the decisions were taken by one or more members of the group.

In these and in other ways the Director's report marshals much evidence which if properly followed further may enable the Commission to establish the fact of interconnection among a number of these companies.

1.14 However, in view of the amendment to its application made by Messrs. Birla Jute Manufacturing Company as indicated above, the Commission has come to the conclusion that this amendment satisfied to a substantial extent the Commission's purpose in undertaking the interconnection enquiry in so far as the present case is concerned. The Commission has, therefore, decided not to take any view at this stage of the report of the Director of Investigation and to deal with the application purely on the basis of the amendment made to the application indicating that, for the present purpose, the applicant Company may be deemed to be interconnected with 25 other companies as described above.

1.15 We have already forwarded a copy of the report of the Director of Investigation dated 11th May, 1973 along with our report in the case of M/s. Kesoram Industries & Cotton Mills Ltd. and the same is, therefore, not being enclosed with the present report. As stated in our earlier report relating to M/s. Kesoram Industries & Cottons Mills Ltd., the Director's report indicates broadly the lines of investigations which have been pursued and the tentative conclusions drawn by the Director on the basis of the material that could be collected up to now.

CHAPTER II

THE APPLICANT COMPANY AND ITS PROPOSAL

2.01 M/s. Birla Jute Manufacturing Co. Ltd. is an old and established Company. The authorised capital of the Company as on 31st March '73 was Rs. 15,00,00,000 and the subscribed and paid-up capital was Rs. 4,98,58,590. The Company has three subsidiaries *viz.* India Linoleums Ltd., Assam Jute Supply Company Ltd., and Bharat Overseas Corporation. The Company has diversified activities. It has at present five manufacturing divisions namely, Jute Goods, Calcium Carbide, Oxygen and Acetylene Gases, Staple Fibre Yarn and Portland Cement. The figures of licensed and installed capacity as well as actual output of different divisions are given below:

TABLE 1

Name of the Division	Licensed Capacity	Installed Capacity	Actual output 1971-72
1. Jute Goods	150 Broad Looms *1568 Narrow Looms	125 Broad Looms 620 Narrow Looms	28948 Tonnes
2. Calcium Carbide	12300 Tonnes	12300 Tonnes	14329 Tonnes
3. (a) Oxygen Gas	1280000 Cu. Mts.	1280000 Cu. Mts.	1680305 Cu. Mts.
(b) Acetylene Gas	426700 Cu. Mts.	426700 Cu. Mts.	158345 Cu. Mts.
4. Synthetic, Viscose, etc. Yarns & other Goods	45610 Spdls.	45320 Spdls.	4790 Tonnes
5. (a) Cement	981000 Tonnes	981000 Tonnes	811054 Tonnes
(b) Slag Cement	600000 Tonnes	Not yet installed	

*Licensed capacity not applicable; figure shown as per certificate from Indian Jute Mills Association Installed Capacity has been certified by Company's Technical Experts.

2.02 The applicant Company has already three Cement Plants, the details about which are given in the table below:—

TABLE 2

(in Tonnes)

Item of production		Capaicty		Annual Production 1972-73
		Licensed	Installed	
Portland Cement	Satna Cement Unit, Satna.	5,81,000	5,81,000	6,85,305
	Birla Cement Works, Chittorgarh.	4,00,000	4,00,000	3,73,018
Slag Cement	Durgapur Cement Works	6,00,000	The plant is under construction for which a COB licence has been obtained.	

Capital Structure

2.03 Data about Company's capital structure are given below:—

Authorised		Rs.
1,00,00,000	Ordinary shares of Rs. 10 each	10,00,00,000
25,000	7½% (Subject to income-tax) Cumulative preference share of Rs. 100 each	25,00,000
4,75,000	Second Preference Shares of Rs. 100 each	4,75,00,000
		15,00,00,000

Issued

39,97,123	Ordinary Shares of Rs. 10 each	3,99,71,230
25,000	7½% (Subject to income-tax) Cumulative Preference shares of Rs. 100 each	25,00,000
75,000	9.3% Redeemable Cumulative Second Preference Shares of Rs. 100 each	75,00,000
		4,99,71,230

Subscribed and Paid-up

6,98,231	Ordinary Shares of Rs. 10 each	69,82,310
32,90,823	Oridinary Shares of Rs. 10 each allotted as fully paid-up Bonus Shares by Capitalisation of Revenue Reserve of Rs. 2,76,79,004 Share Premium Rs. 27,29,226 and Capital Redemption Reserve Rs. 25,00,000	3,29,08,230
23,642	7½% (Subject to Income-tax) Cumulative Preference Shares of Rs. 100 each fully paid-up in cash	23,64,200
75,000	9.3% Redeemable Cumulative Second Preference Shares of Rs. 100 each fully paid-up in cash, redeemable at per at any time after 31-3-1978 but not later than 31-3-1980 as may be decided by the Directors on giving 3 month's Notice in writing	75,00,000
		4,97,54,740
	Add : Forfeited shares (Amount originally paid-up)	1,03,850
		4,98,58,590

2.04 It will be observed from above that out of 39,89,054 equity shares, 32,90,823 shares were issued by way of bonus shares. In other wards, 82.4% of equity shares have been issued by way of bonus shares.

Analysis of equity of applicant Company

2.05 In this connection, it may also be stated that the analysis of the ownership of equity of the applicant Company on the basis of Director of Investigation's study shows the following situations:

I.		Total number of Equity shares	39,89,054
II.	(a)	Shares held by Public Financial Institutions, Nationalised Banks and Insurance Companies	4,15,638
	(b)	shares held by members of Birla family and their associates . .	4,51,728
	(c)	shares held by undertakings assumed to be inter-connected with the applicant Company.	73,500
	(d)	shares held by bodies corporate, trusts and registered societies controlled by members of Birla family and their associates . .	13,18,644
III.		Shares controlled by members of Birla Family and their associates II(b)+II(c)+II(d)	18,43,872
IV.		Percentage of III with reference of I above	46·22%

Board of Directors

2.06 The present Board of Directors of the Company as reported by the Company consists of the following:

(1) Shri M.P. Birla, Chairman.
(2) Shri H.L. Somany.
(3) Shri G.D. Kothari.
(4) Shri J.N. Goenka.
(5) Shri P.D. Himatsingka.
(6) Shri Rasiklal Maneklal Dalal.
(7) Shri Brijratan S. Mohatta.
(8) Shri N.K. Kejriwal.

It is pertinent to mention that the composition of the Board has been the same since 1966 and that there has been no change in the Board after the abolition of Managing Agency System. (Of the eight Directors, at present, seven are continuing since 1964 i.e. the period upto which information was called for from the Company).

2.07 So far the subsidiaries of the applicant Company are concerned their Board of Directors as on March, 1972 were as under:—

India Linoleums Ltd.

1. Shri S.K. Birla.
2. Shri H. P. Barat.
3. Shri R.K. Chhaochharia (also President of M/s. Birla Jute).
4. Shri T. Kanoria.
5. Shri S.K. Mohatta.
6. Shri B. Murarka.
7. Shri B.P. Poddar.

Assam Jute Supply Company Ltd.

1. Shri R.K. Chhaochharia (Also President of M/s. Birla Jute and Director of India Linoleums).
2. Shri B.K. Nopany.
3. Shri M.D. Poddar.
4. Shri C.B. Nevatia.

Bharat Overseas Corporation

Incorporated in U.S.A. Details of Directors not available in published reports.

Organisation

2.08 The Company has stated that its affairs are managed by the Board of Directors who meet periodically and take policy decisions and review the working of its several divisions. The Company has no Managing Director or Wholetime Director. The day-to-day working of the Company is carried on by the officers of the Company who have been granted Powers of Attorney, brief details of which are given below:—

	Name of the Officer	Designation	Brief Description of Power
	(1)	(2)	(3)
1.	Shri R.K. Chhaochharia	President, Jute Mills, Calcium Carbide and Staple Fibre Divisions (at H.O.)	To see to the working of the respective divisions generally and coordinate activities of the various department. Appointment of Staff & Officers as required at H.O.
2.	Shri R.L. Thirani	President, Jute Mills, Calcium Carbide and Staple Fibre Divisions (at Works)	Same as at Serial Number 1 above at the factories of these Divisions.
3.	Shri J.R. Birla	President (Cement Division)	Same as at Serial No. 1 above at the Cement Works.
4.	Shri S.N. Prasad	Vice President	To Look after Taxation, Accounts and Company Law matters of the Company generally.
5.	Shri B.L. Shah	Finance Manager	To look after the accounts of the several divisions of the Company and banking and finance matters.
6.	Shri M.D. Poddar	Vice-President (Exports), Jute Mills Division	To look after the import of jute and export of Jute goods.
7.	Shri U.S. Sethia	Senior Vice-President, Satna Cement Works	To supervise the working of the Company's Satna Cement Works.
8.	Shri M.M. Goswami	Vice-President, Birla Cement Works	To supervise the working of the Company's Birla Cement Works, Chittorgarh.
9.	Shri G.S. Dalmiya	Vice-President, Durgapur Cement Works	To supervise the working of the Company's Durgapur Cement Works.
10.	Shri M.L. Maheshwary	Secretary	Company's Secretarial matters.

It has been further stated that the officers mentioned above and those working under them carry out their respective duties under the superintendence, direction and control of the Board of Directors of the Company.

Personnel

2.09 In view of the fact that the Company has diverse areas of productive activity in its different divisions, it was asked to indicate the manner in which its presonnel are recruited and trained. It was stated that the Company does not have any scheme as such of recruitng management trainees—technical or non-technical. Generally, the Company's employees are appointed from amongst the persons who approach for employment. Enquiries are made about their family and social background and the experience gained in the past. It was further stated that whereas academic and technical qualifications are given due consideration, the same are not considered essential if the person has either experience or aptitude to handle any particular job. Posts are also sometimes, advertised but promotions are invariably given from within the organisation or from the allied units.

2.10 It was also stated that there is no formal programme of training, but 'on the job' training is imparted. It was further stated that the Company does not have any Standardised Form of letters of appointment and there are no standardised terms and conditions regarding pay and duration of training. The Company further stated that Satna Cement Works was the first cement plant established by the Company in 1958. At that time recruitment of trained personnel was made and some other persons were trained in the unit itself. When Birla Cement Works, Chittorgarh was started, a few trained persons were transferred from Satna to Chittorgarh and some others were trained in the unit. The Company proposes to do the same in the cases of Durgapur and Patratu Plants.

R&D and Quality Control

2.11 From the information supplied by the Company in this regard it appears that the Company does not have any sectoral or sectional R&D Organisation of its own excepting in the case of Calcium Carbide Division wherein it is claimed that the Company has been successful in replacing about 40% of the imported parts used in the Calcium Carbide Industry. It relies on the R&D being carried on by the Cement Research Institute of India to which like other Cement producers it is making its contributions. For its Jute and Staple Fibre Divisions the Company similarly relies on the respective industries research institutions viz. Indian Jute Industries Research Organisation and ATIRA. As against this, the Company appears to have adopted a detailed system of quality control in its various divisions including the Cement Division. The details furnished by the Company appear as AnnexureIII. The Company has claimed that its products conform to the ISI specifications. However, no specifications are put on the product as per the conversion is the trade.

Common services enjoyed by the various units

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2.12 The Company was asked whether there are any common services provided by the centralised management to the various Cement Units. The Company has stated that the Head Office/Registered Office is not rendering any common administrative or financial services to the several cement units excepting the following:

"(a) Board Meetings of the Company are periodically held at the Head Office where Directors consider matters relating to several units of the Company. The decisions of the Board are conveyed to the units from time to time.

(b) Certain departments of the Company as a whole, for example, Share Department, Company Law, Central Accounts, Income-tax Deptt., Stores Deptt. are maintained at the Head Office/Registered Office.

(c) Each of the cement units is maintaining its own cash credit account and except for issue of shares/debentures or for meeting occasional financial requirements of the units concerned, the Head Office/Registered Office is not rendering any common service."

Company's Proposal

2.13 The Company has proposed the setting up of a Cement Clinker plant at Patratu, Distt. Hazari Bagh (Bihar). The plant will have a capacity of 3.50 lac tonnes (capacity on the basis of 3 shifts for 330 days in a year). It is proposed to complete the plant in one phase. It is expected to be completed within three years after the licence is granted and other formalities are completed. The estimated project cost was Rs. 525 lacs (subsequently raised to Rs. 600 lacs). The machinery and plant, is proposed to be procured indigenously. The suppliers of the plant and machinery may have to import certain components for the manufacture of the plant.

2.14 The case of the Company is that in applying for a Clinker Plant at Patratu, the Company is not seeking any additional capacity for manufacturing Cement but is only trying to implement the capacity already sanctioned to it at Durgapur Cement Plant for which a COB licence for 6 lac tonnes capacity per annum has already been granted. At Durgapur, the Company is going to manufacture Cement from the iron slag which was hitherto a waste product of the Steel Plant. The Clinker is proposed to be mixed with slag and gypsum in the ratio of 40:55:5 respectively for producing Slag Cement.

2.15 The main raw materials required would be limestone (8 lac tons), and laterite (10,000 tonnes). It has been claimed that Limestone and laterite will be available in the vicinity of Patratu and will be transported from the mines to the Plant site by Dumpors and Trucks. The Bihar Government has stated that sufficient limestone reserves are likely to be available for setting up the Cement Plant at Patratu. The coal required for the plant would be brought from Bengal/Bihar Coal fields by rail. It has been claimed that the arrangements for the supply of wagons etc. according to the Company would be made with the Eastern Railways after the Company's application is cleared by the Government. In so far as the requirements of power are concerned, the Government of Bihar, has stated that there should be no difficulty about the availability of power. The Company would produce Clinker by wet process for use in the production of Cement at Durgapur. It may be stated here that the Company is using wet process at Satna works and dry process at its Chittorgarh works.

2.16 In response to the query as to how far the criteria mentioned in Section 28 of the Act would be satisfied if the Company's proposal is approved, the Company has stated as under:—

> "13. As per Industrial Policy Statement of the Government of India notified by the Press Note dated 2-2-1973, Cement has been listed among the 19 core industries as item No. 19 thereof which are permissible to the larger industrial houses.
>
> "The proposed Clinker Plant would feed the Cement plant of the Company at Durgapur Cement Works for which a COB Licence has been granted to the Company. Clinker is only an intermediary product for manufacture of cement and a Cement Plant must have a feeding Clinker Plant. It is, therefore, necessary for purposes of achieving production by most efficient and economic means that the Clinker Plant for the Company's Durgapur Cement Works should be situated at the nearest available site.
>
> "Besides, both the Durgapur Cement Works and Patratu Clinker Plant shall be situated in backward areas. The Clinker Plant will create additional Employment opportunity for about 300 workers in addition to technical and administrative staff."

In its application dated 26th August '71 in Form E(I) prescribed under Rule 7(2) of the Registration and Licensing of Industrial Undertakings Rules, 1952, the Company has given a brief account of the following circumstances which justify the setting of the existing unit.

> "(i) The proposed site at Patratu in Bihar being in the Eastern region is deficit in cement production, and therefore, has locational advantage vide press note No. 2-10/71-CEM dated 28th July '71 issued by the Ministry of Industrial Development.
>
> "(ii) This clinker would be used for blending with blast furnace slag which is a waste of Steel Plant for manufacturing slag cement at Durgapur.
>
> "(iii) Although the limestone, which is the principal raw material, is available in abundance, its quality is not suitable for cement clinker manufacture. Therefore, the low grade limestone deposits would be utilised by adopting benefication process.
>
> "(iv) The applicant has enough technical know-how and managerial experience of this line of production i.e. the applicant already runs two cement plants namely Satna Cement Works, Satna (M.P.) and Birla Cement Works, Chittorgarh (Raj.).
>
> "(v) The financial resources of the applicant Company also permit undertaking such expansion of capacity.
>
> "(vi) The cement plant machineries are being manufactured indigenously and, therefore, the plant can be prodcured easily.
>
> "(vii) All the raw materials required for manufacture of cement clinker are available indigenously from nearby areas.
>
> "(viii) The Bihar State Electricity Board have sufficient capacity for generation of power and meeting the requirement of the proposed unit, and they have agreed to supply the required quantity of power."

CHAPTER III

POSITION OF CEMENT INDUSTRY

Growth of the Cement Industry

3.01 According to the note on 'Programme of Development for the Cement Industry for the fourth Plan Period (1969-70 to 1973-74)' prepared by the Planning Commission's Panel on Cement, the growth of the Cement Industry has followed an erratic pattern during the last 20 years and, even when serious shortages of cement were obtaining, the growth of the Cement Industry did not fit into the scheme of planning stipulated in the plans for the industry as a whole. According to the Panel, the annual cumulative capacity growth during the three plan periods was as under:—

1st Plan	8·29%
2nd Plan	13·20%
3rd Plan	5·23%

The growth of the industry during the first two years of 'plan holiday' i.e. 1966-68 was somewhat tardy with a meagre addition of 1.18 million tonnes to the capacity, representing the lowest rate of growth—less than 5% per annum.

3.02 The targets and achievements of the Cement Industry during the Five Year Plans are given in the table below:—

TABLE 3

1950-51 Production	First Plan		Second Plan		Third Plan		1972	Fourth Plan
	1955-56 Target	Achievement	1960-61 Target	Achievement	1965-66 Target	Achievement	Achievement	1973-74 Target
2·7	4·9	4·7	13·2	7·9	13·2	10·8	15·7	18·0

Source: Statistical Bulletin on Cement Production and Despatches—1972 (Ministry of Industrial Development) p.53.

The Planning Commission in the Approach to the Fifth Plan has projected the output of cement at the end of the Fifth Plan at 26.8 million tonnes.

3.03 According to the Cement Controller, Ministry of Industrial Development, an idea regarding the growth of the industry by way of the capacity and production of cement for the last ten years can be had from the figures given below:

TABLE 4

Year	Installed capacity	Production (in million tonnes)	% of production to capacity	Rate of Growth
1962	9·6	8·7	94	..
1963	9·6	9·2	94	5·7
1964	10·4	9·7	93	5·4
1965	11·0	10·6	96	9·3
1966	11·7	11·0	94	3·8
1967	12·3	11·3	92	2·7
1968	13·9	11·9	86	5·3
1969	15·3	13·6	89	14·3
1970	16·8	13·9	83	2·2
1971	18·3	14·9	82	7·2
1972	19·7	15·7	80	5·4

Source: Cement Controller, Ministry of Industrial Development.

Utilisation of capacity and factors responsible for low productivity

3.04 It would be observed from the table given in para 3.03 above that utilisation of capacity has been declining from 96 in 1965 to 80 in 1972. The result is that output has not increased in proportion to additional capacity and scarcity conditions prevail. One of the major reasons for under-utilisation of capacity appears to be the scarcity of transportation facilities and high freight price ratio. It is claimed that at some of the factories, production was throttled because of heavy accumulation of clinker stocks owing to the non-availability of wagons. According to the Industry, short supply of wagons constitutes a major deterrent in the productivity of the industry. 37.91 per cent of the shortfall is ascribed to this single factor. Plant breakdown, repair of kilns etc. constituted 22.63%, labour troubles contributed 5.01%, production and marketing troubles of new factories accounted for 8.21%. Power, coal, water and limestone shortage effected 7.35%, miscellaneous factors which are not detailed accounted for 18.88%.*

3.05 During 1972, the industry behaved better than it did in 1971. But for the power shortage and a nationwide strike in August 1972, the results might have been still better. Despite this, the production during 1972 fell short of the target by about two million tonnes. The situation in 1973 is alarming. According to a note: "Cement Production & Despatches—Movements by Railways in April, 1973", prepared by the Cement Controller, as against an output amounting to 84.75% of capacity in January to March, 1972, utilisation declined to 76.66% in the corresponding period in 1973. The record—77% in March and 70% in April—continues to be bad. The major reasons contributing to this dismal picture aresaid to be—

(a) heavy power cuts imposed by the State Electricity Boards in Tamil Nadu (75%), Rajasthan (50%), Gujarat (50%), Andhra Pradesh (35%) and Haryana;

(b) Labour unrest; and

(c) coal shortage at some of the units.

Location and regionwise data on production and consumption

3.06 Cement production has increased in all the zones during the last 12 years. The figures of output of cement (zonewise) are given in the table below:—

TABLE 5

(in million metric tonnes)

Year	North Zone (J&K, Punjab, Haryana, U.P., Rajasthan)	East Zone (W. Bengal, Assam, Bihar, Orissa)	West Zone (M.P., Gujarat, Maharashtra)	South Zone (Andhra Pradesh, Madras, Mysore, Kerala)
1	2	3	4	5
1961 . . .	1·95	1·79	1·77	2·80
1962 . . .	1·95	1·88	1·89	2·92
1963 . . .	2·28	1·91	2·04	3·12
1964 . . .	2·06	1·97	2·23	3·58
1965 . . .	2·03	2·05	2·73	3·78
1966 . . .	2·06	2·02	3·02	3·95
1967 . . .	2·19	1·97	3·30	3·85
1968 . . .	2·22	2·25	3·28	4·20
1969 . . .	2·39	2·41	3·89	4·99
1970 . . .	2·33	2·43	3·90	5·34
1971 . . .	2·32	2·34	4·26	5·99
1972 . . .	2·72	2·49	4·46	6·04

Sources : DGTD. For 1971 & 1972, Cement Controller, Ministry of Industrial Development.

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*Statistical Bulletin on Cement Production and Despatches for the year 1971 (Office of the Cement Controller, Govt. of India), p. 193.

3.07 Since the cement industry is resource based, the factories are concentrated at points close to the regions where extensive cement grade limestone and other raw materials are located. More cement factories have come up in the Southern and Western regions becuase of these considerations. The demand on the other hand is more pronounced in the Northern and Western regions, State-wise production and consumption of cement for the year 1972 is given in the table.

TABLE 6

Zone/State 1	Production in '000 Tonnes 2	Total consumption in '000 tonnes 3	Surplus (+) Deficit (—) 4
NORTH			
Chandigarh	..	62	(—)62
Delhi	..	646	(—)1646
Haryana	473	553	(—)80
Himachal Pradesh	..	55	(—)55
Punjab	..	673	(—)673
Rajasthan	1586	501	(+)1085
Uttar Pradesh	664	1805	(—)1141
Jammu & Kashmir	..	108	(—)108
TOTAL NORTH	2723	4403	(—)1680
EAST			
Assam*	48	288	(—)240
Bihar	1655	972	(+)683
Orissa	788	356	(+)432
West Bengal	..	1008	(—)1008
Manipur	..	19	(—)19
Nagaland	..	21	(—)21
Arunachal Pradesh	..	8	(—)8
Tripura	..	17	(—)17
TOTAL EAST	2491	2689	(—)198
WEST			
Gujarat	1685	1405	(+)280
Maharashtra	474	1974	(—)1500
Madhya Pradesh	2303	744	(+)1559
Goa, Daman & Diu	..	63	(—)63
Dadra & Nagar Haveli	..	1	(—)1
TOTAL WEST	4462	4187	(+)275
SOUTH			
Andhra Pradesh	1609	1210	(+)399
Tamil Nadu	2809	1377	(+)1432
Mysore	1588	870	(+)718
Kerala	32	623	(—)591
Pondicherry	..	22	(—)22
Andaman & Nicobar	..	19	(—)19
Laccadives	..	..	..
TOTAL SOUTH	6038	4121	(+)1917
GRANT TOTAL	15714	15400	(+)314

*Meghalaya included in Assam.

Source: Statistical Bulletin on Cement Production and Despatches for the year 1972—Ministry of Industrial Development, pp. 35-36.

These data show that scarcity is more marked in the Northern Zone, although there is some scarcity in the Eastern Zone as well.

Capacity Gap

3.08 The data about actual utilisation of capacity indicate that it would be prodent to assume utilisation at the rate of 80% of capacity. The Planning Commission has projected an output of 26.8 million tonnes by the end of the Fifth Five Year Plan. Proceeding on the basis of 80% capacity utilisation, the country would have to create an additional capacity of about 13 million tonnes with reference to the capcity in 1972 to meet that target by the end of 1978-79.

3.09 The Cement Controller has supplied the following estimates of demand and capacity for the Fifth Plan Period:

TABLE 7

(in million tonnes)

Demand	North Zone	East Zone	West Zone	South Zone	Total
1973-74	5·35	3·41	4·98	5·14	18·8
1978-79	8·20	5·20	7·60	7·00	28·00
Capacity required by					
1973-74	3·67	3·89	6·18	7·42	21·2
1978-79	9·60	6·12	9·00	8·28	33·0
Gap to be covered by 5th Plan	5·93	2·23	2·82	0·86	11·80
Existing capacity as on 15-4-73	3·43	3·29	5·61	7·43	19·76

It is further stated that additional expected capacity to be covered in the Fifth Plan for which the Cement Corporation of India has submitted schemes or has obtained approval from the Government of India, comes approximately to 2.68 million tonnes. Similarly, the State Public Sector is expected to produce about three million tonnes. The rest of the 6.40 million tonnes capacity will, therefore, have to be created in the Private Sector.

3·10 It will be seen from Annexure IV that the position above the installed capacity and licenced capacity as on 25th August, 1973, was as follows:—

TABLE 8

Present Capacity	19·76 million tonnes
COB Licences	2·58 million tonnes
Industrial Licences	1.17 million tonnes
Letters of Intent	9·54 million tonnes
Total	33·05

It would be observed from the above table that we have already reached the capacity target of 33 million tonnes for the year 1978-79 as mentioned in para 3·09. It is, however, important to note that it is not unlikely that a number of letters of intent (Annexure V) will not fructify. Some spare capacity is, therefore, necessary for meeting the possible gap in the achievement of the target.

3·11 Eighteen applications are reported to be pending with the Ministry of Industrial Development for grant of licences. The information regarding the names of the applicants, the location of the plant and the capacity applied for is given in Annexure VI. It would be observed that out of the total capacity of 7·72 million tonnes applied for, applications for 4·26 million tonnes capacity are from Large Industrial Houses.

Government Policy on Industrial Licences

3·12 In the recent announcement made by the Government on Industrial Licensing Policy (February, 1973) the Government has consolidated the list of industries which are open, along with other applicants, for participation by the Larger Industrial Houses. It has been explained that in the context of the approach to the Fifth Plan, core industries of importance of the national economy in the future, industries having direct linkage with such core industries, and industries with a long term export potential are all industries of basic, critical and strategic importance for the growth of the economy and Larger Houses will be eligible to participate in the establishment of such industries. Cement is included as one of the industries satisfying these criteria.

In addition, the following points indicated regarding the Cement Industry in the recent 'Guidelines' are also relevant in the present context:

** ** ** **

"2·3 (b) Utilisation of low grade limestone, especially in deficit areas, would also have to be kept in mind, subject to economies of production.

(c) Having regard to the implications of transport of cement over long distances, proposals for locating clinker grinding capacity near the centres of demand, on the basis of movement of clinker from locations which have advantages of raw materials etc. will be considered.

** ** ** **

(g) The standard size of cement plants has been 600 tonnes per day but in the light of increase in the cost of cement machinery and improved economies of sale, estalishment of higher capacities viz., 1000—1200 tonnes per day capacity will need to be considered, subject to favourable factors in respect of location and availability of raw materials. Plants of this size can also be manufactured indigenously."

"2·4 Special consideration will be given to proposals aimed at:

(i) locating cement capacity in deficit areas;

(ii) utilisation of raw materials like blast furnace slag, fly ash and lower grade limestone."

** ** ** **

Guidelines for industries 1973-74 (Government of India, Ministry of Industrial Development, New Delhi) pp. 203-204.

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CHAPTER IV

EXAMINATION OF THE PROPOSAL

Importance of the proposed unit

4·01 The need for creating additional capacity for the production of cement in the country is well recognised and this matter has been discussed in Chapter III earlier. The Company's proposal is to set up a Clinker Plant at Patratu for supplying Clinker to Durgapur Cement Plant for manufacturing Slag Cement for which a COB licence has already been granted by the Central Government. In view of this the present proposal is for manufacturing an intermediate product for captive consumption. It is also pertinent to note here that the proposal to set up a Clinker Plant is in Bihar which is one of the industrially backward States of the country. The Commission had earlier, while considering the application of M/s. Kesoram Industries & Cotton Mills Ltd., made enquiries from Cement Corporation of India, a Central Government undertaking, regarding the various cement projects which they are proposing to undertake. The representative of the Corporation had indicated that their hands are full with the various projects under construction and planned. The Corporation is not proposing to set up any cement plant in the State of Bihar. It may also be mentioned here that no objections have been received by the Commission to the proposal of the applicant Company.

Raw Materials

4·02 One of the important questions that has to be considered while examining the proposal is as to whether adequate quantities of raw materials of the requisite grade are available in the vicinity of the proposed plant for making the proposal economically viable. The company had in its application in Form II for establishment of a new undertaking indicated that the estimated requirements of raw material would be 8 lac tonnes and 10,000 tonnes of limestone and latrite respectively. The requirements of limestone have been estimated at 8 lac tonnes as the available raw material is expected to be of low grade and would have to undergo beneficiation. It has been stated that 2·3 tonnes of low grade limestone, as against 1·6 tonnes of high grade limestone would be required for producing one ton of Clinker. As regards the availability of limestone, the Company has submitted the analysis report of limestone available in Ramgarh area as certified by the geologist of the company. The Company has also enclosed a preliminary report of its geologist regarding the availability of limestone at Uparbarga Mouza of the Hazaribagh district for which a prospecting licence for an area comprising about 638 acres of land was obtained by the company on 16-3-1973. According to the Company's geologist, the limestone is in hill formation and the expected quantity in five hills is about 30 million tonnes. It would thus appear that the Company does not hold a lease for any mines in or near Patratu, although it is holding a prospecting licence for another area in the same district of Hazaribagh. Even for Uparbarga in District Hazaribagh no detailed survey report appears to have been prepared so far. In the absence of any detailed survey report by any independent authority like the Geological Survey of India or the Mining Department of the State Government, it is not possible for the Commission to satisfy itself that adequate quantities of limestone of the requisite grade are available at Patratu or near about that area. The Commission assumes that this matter would be gone into fully by the Department of Industrial Development before any industrial licence is finally issued.

4·03 According to the Company, laterite would be obtained from mines for which leases would be obtained from the Government of Bihar. The Company has stated that Slack Coal would be obtained from Bengal and Bihar Coal Fields. As regards the transportation of raw materials, it has been stated that limestone and laterite would be transported by dumpers and trucks and coal would be received in open box wagon rakes.

Size of Plant

4·04 The applicant Company is proposing to put up a plant with a capacity of 1,000 tonnes per day. It appears that a plant of about 1,000 to 1,200 per tonnes is considered as economical. Looked at from this angle, the proposed plant appears to be economical. There is, however, another matter which needs mention here. The proposed plant is intended to be a captive unit for the Durgapur Cement Plant which has a capacity of six lac tonnes per year. The Durgapur Cement Plant would be utilising slag from Durgapur Steel Plant and Clinker from the proposed plant for manufacturing slag cement. It is commonly believed and even according to the Company the proportion of slag, clinker and gypsum in slag cement is approximately 55 : 40 : 5. Proceeding on this basis for ensuring full utilisation of 3·5 lacs of clinker, one would requisite a cement plant with a capacity of over 8 lac tonnes whereas the proposed capacity of the Durgapur Plant is only 6 lac tonnes per year. When this matter was put to the Company for explanation, it has been stated by it that the proportion of slag and clinker are likely to vary considerably if the limestone is of inferior quality and the percentage of calcium oxide in the slag goes down below 40.

Should Birla Jute do it?

4·05 The discussion up to this point clearly indicates that the project in question is a commendable one and would make a useful contribution to the national economy. Further by using slag from Durgapur Steel Plant, which is at present a waste material for manufacturing clinker, the Company would be putting this waste material to good use. From the point of view of the M.R.T.P. Act., a far more important question is what would be the advantages and disadvantages of permitting the applicant Company to undertake this new project.

4·06 In examining this question two aspects have to be kept in view. The first is that the applicant Company itself is a company of a large size with its capital assets exceeding Rs. 20 crores and, therefore, registered under Section 20(a) of the MRTP Act. A further relevant point, in this context is that not only is it a very large company but in itself it is also a conglomerate in that it produces a variety of products such as Jute goods, Calcium Carbide, Oxygen and Acetylene gases, Staple Fibre Yarn and other goods and cement. It will be seen that most of these items have technically no relationship whatsoever with each other and there is, therefore, little advantage in terms of technical management, R & D effort or even commercial organisation by having these vastly different units managed by one corporate entity. Out of the seven productive units of the company, five are located in West Bengal (four in 24 Parganas and one at Durgapur), one in Rajasthan and one in Madhya Pradesh. The new project that is proposed is going to be located in Bihar. It cannot, therefore, even be said that certain special economies of management arise as a result of these diverse units being located in proximity. One question that has, therefore, to be examined is whether any advantage in terms of good management is likely to accrue as a result of permitting this conglomerate Company to undertake the setting up of one more unit at a new location.

4·07 One can appreciate the fact that diversification of activities that is represented by the Company having set up production units with no technological relationship with each other may have been undertaken in its historical past for various reasons. The company was under the managing agency of M/s. Birla Bros. Pvt. Ltd. till the managing agency system was abolished in 1970. The managing agents may have found that in certain new activities were to be undertaken, the internal resources being generated by an existing profitable concern were the best means of doing so. It should also be conceded that from the point of view of the shareholders the diversification undertaken by the company has been of benefit. Many of the Jute Mills in the country were having fluctuating fortunes in the last several years due to various reasons. Jute mills which have diversified into other activities have, but by not putting all their eggs in one basket, been able to withstand the adversities faced by the jute industry in certain years and thus have ensured sustained profits and therefore dividends for their shoreholders. One cannot ignore this important aspect.

Inadequacies of Conglomeration

4·08 At the same time a question may be raised as to whether, from the view point of the long term development of the various industrial units, such a conglomeration of diverse activities under one management is desirable. As we have already indicated earlier, the data collected by us show that the only aspect of modern management practice which seems to have become an integral part of the management of the applicant Company is that regarding quality control. Regarding other aspects of management, the approach seems to be traditional and old-fashioned. For a company of such a large size and widespread activities, and which has also been in existence for many decades now, the whole approach to recruitment, training and development of personnel appears to be slipshod and capricious. There appears to be little effort at systematic recruitment and training of personnel whether on the technological or the managerial side. The indifferent attitude of the company regarding R & D is an even greater indication of its old-fashioned and traditional management approach. All its units appear to be content with such contribution as is made to the common research associations set up in the concerned industries. There appears to be no awareness either in the individual units or in the central management that a large sized company of this kind has the responsibility to develop R & D, not only in its own interest but also in the interst of the national economy.

4·09 It would not be wrong to say that these inadequacies of the company's management in vital respects arise at lest to some extent from its conglomerate nature. The common top management of the company as a whole appears to be concerned with financial management and management of legal affairs—and hardly anything else. There is no set up in the Head Office and there are no persons who would be in a position to give any export and capable leadership in terms of developing management practices which would serve the development of the units in the long run. It may be objected on behalf of the company that the very success of the company should belie the criticism that it has not developed an appropriate system of management. It is also true that the Company has been able to attain good results in terms of the utilisation of its cement plant at Satna and Chittorgarh and the Calcium Carbide plant at Calcutta. It would not, however, be unreasonable to point out that these past results do not necessarily indicate that the potential for sustained good results has been built up in the company. The doubts arise exactly for the reasons mentioned earlier, viz., the casual, almost indifferent, attitude regarding systematic management of personnel and R & D.

Implications of inter-connection

4·10 While considering the Company's proposal, we have to take note of the fact that the applicant Company is to be assumed as being inter-connected with a number of other companies in what is popularly known as the Birla Group. In view of the fact that the applicant Company has already amended para 8A of its application in Form II to the Central Government and has agreed that it may be assumed to be inter-connected with 25 other companies, we can, for the purpose of the present inquiry, proceed on the assumption that the applicant Company is inter-connected with 24 other companies (excluding M/s. Zuari Agro Chemicals Limited, which has not given its consent to the company's proposal for assuming inter-connection). Many of these companies are of a sizeable magnitude and this group of inter-connected companies constitutes a very large concentration of economic power in the hands of a small group of persons. The approval of the present proposal would further add to the economic power of this Group. This fact has to be taken into consideration in examining the proposal and making our recommendations.

4·11 A further point to be noted is that the applicant Company as well as three other inter-connected companies, viz. M/s. Kesoram Industries & Cotton Mills Limited, M/s. Century Spinning and Mfg. Co. Ltd. and M/s. Mysore Cement Ltd. are enggaed in the production of cement. M/s. Bally Jute Co., an inter-connected company has applied for a licence for setting up of a cement plant. The annual capacities of these units are shown as below:—

TABLE 9

(In million tonnes)

		Existing Annual Capacity	Proposed Annual Capacity*
1.	*Birla Jute Mfg. Co.* :		
	(i) Satna (M.P.) · · · · · · · · · ·	0·58	
	(ii) Chittorgarh (Raj) · · · · · · · ·	0·40	
	(iii) Durgapur (West Bengal) · · · · · · · ·	0·60 (COB)	
2.	*Kesoram Cements:*		
	(iv) Paddpatti (A.P.) · · · · · · · · · ·	0·45	
	(v) Patan (Raj) · · · · · · · · · ·	..	0·74
3.	*Century Cements*:		
	(vi) Tilda (M.P.) · · · · · · · · · ·	0·60 (COB)	0·60
	(vii) Maihar (M.P.) · · · · · · · · · ·	..	0·75
4.	*Mysore Cements:*		
	(viii) Ammasundra (Mysore) · · · · · · · ·	0·40	
	(ix) Narshinghgarh (M.P.) · · · · · · · ·	..	0·40
5.	*Bally Jute Co.*		
	(x) Sojat Road (Raj.) · · · · · · · ·	..	0·40
		3·03	2·89

*Applications under the Consideration of Government.

The share of the inter-connected companies of Birla Group (installed plus COB Licence in the Cement Industry (installed plus COB Licences) comes to 13·5%. What the share of this group will be in future is difficult to estimate as we are in the position to examine which of the Letters of Intent will finally fructify and which will not. It can, however, be said that the share of this group will probably remain at least the same.

4·12 One other aspect of the inter-connected companies which have cement units is that, like the applicant company these also are conglomerates, the only exception to this being M/s Mysore Cement. The data collected by us about the organisation and management practices of these units show that they also suffer from the same inadequacies which we mentioned earlier about the applicant company (see Annexure VII). Even Mysore Cements, though it is a company which is engaged only in the production of cement, is not very different in terms of its approach to personnel or R &D.

Special Inadequacies of the Group

4·13 We would like to pose these inadequacies in the management of these conglomerate companies in the Birla Group, especially those which are engaged in the production of cement, in contrast with the organisation and practices of the Associated Cement Companies Ltd. (ACC). The information obtained from the A.C.C. about these aspects is given in Annexure VIII. It will be seen from this information that the A.C.C. has an elaborate and well organised system for recruitment training and development of its technical, supervisory and managerial personnel. It also has a well organised R & D set up on which a sizeable expenditure is incurred. The result is that the A.C.C. is a pioneer in the technological development relating to cement industry in India and is in a position to help to meet various problems that arise in the further growth of the industry. In this way it makes a contribution not merely to its own further growth and operations, but is in a position to assist the cement industry in the country as a whole. From the information available about some other cement units it appears that their organisation, personnel and R & D are of a much more elementary character (See Annexure IX)

4·14 What conclusions can one draw from the above analysis. One can either say that it is the conglomerate nature of the Birla Companies which are involved in the production of cement which leads to the particular inadequasies described above. This hypothesis, however, is not fully supported in view of the information available about Mysore Cements which has specialised in the production of cement, but still suffers from the same inadequacies. Such information as we have been able to obtain about other cement companies such as Jaipur Udyog and Dalmia Cement, which were classified by the Dutt Committee as belonging to the Dalmia Jain Group, indicates that their approach to personnel management and R & D is also not very different from that observable in the Birla Companies. These companies by themselves are not conglomerates though they also possibly of a vast conglomerate. Perhaps, it would not be unreasonble to concluder from this that it is the conglomerate character of such Groups and their traditions of management which make for these particular inadequacies. It should also be noted that one of the main points to be observed about the applicant company and the inter-connected companies producing cement is that in most of these companies, there are no whole-time Chairman or Managing Directors. The basic decisions are all taken by Boards of Directors, and senior executives are in day to day charge. There is little attempt at systematic building up of cadres of professional managers. These inadequacies persist in spite of the fact that the companies, through effective and shrewd management including diversification, show sustained good financial results.

4·15 When we compare this situtaion with the prevalent in the ACC, which has essentially a professionally organised management, it suggests another hypothesis, namely, that it is the approach to the management prevalent in these inter-connected companies that is responsible for the inadequacies that we find in these companies. The financial success of these companies cannot of course overlooked, and this has a certainly benefited their shareholders. But their managements have not been organised with a view to making a continuing and long-term contribution to technological and economic development. There is an emphasis on short-term and especially financial management, and there appears to be inadequate appreciation of the importance of long-term development—either in terms of personnel or in terms of R & D.

4·16 When the question of the company's approach to R & D was raised during the public hearing, it was claimed on behalf of the applicant company that it is a member of the Cement Research Institute of India which carries on technical research in the Cement Industry. It was further claimed that all the cement producers are making contributions to the Cement Research Institute and the research activities of the Institute are able to meet the R & D requirements of all the cement producers, Shri K.V. Talcherkar, Technical Director of M/s. Holtee Engineers Pvt. Ltd., who was present on behalf of the company in the public hearing as an expert in Cement Industry stated that the research in Cement Industry broadly falled into three fields:—

(a) In developing improved cement manufacturing machinery;

(b) In improving basic types of cement and cement products; and

(c) Operational Research.

It was stated that item (a) will be within the scope of cement machinery manufacturers and the basic research in different types of cements (item (b)) can be best taken care of by large Research Organisation equipped with suitable research facilities and staffed by top class scientists. It was further stated that an individual cement manufacturer has only to take care of item (c) above. The company has after the hearing submitted a note on Research and Development in Cement Industries by Shri Talcherkar in which it has been claimed that the scope of R & D for individual cement manufacturers whether they have single unit or a group of 3/4 units is limited because, from the very nature of food-in-data available, they are not in a position to make any substantial contribution in the research field. It has been admitted that their contribution in day-to-day operational problems, however, has to be significant or else they will not be able to maintain efficient production units.

4·17 Our enquiries from the cement Research Institute, however, reveal that the R & D programme of the Institute is formulated on a "mission oriented" basis and the Institute has already drawn up a 5 year programme of R & D objectives setting out thirty-four objectives on the basis of what is required to be done and what could be possibly done in the foreseeable future. These objectives have flown out of the needs of the industry on a national basis. The Missions required to be achieved in order to fulfil the objectives are first identified and the projects required to be tackled in order to achieve the Missions are then arrived at. It is, thus, evident that the R & D requirements of each cement plant including those relating to operational matters cannot possibly be attended to by the Central Research Institute. It is well-known that the object of an All India Institute in a particular industry is to cater to the research needs of the industry on the national basis and not to the specific problems of individual units.

4·18 As regards the staff recruitment policy of the company it was claimed during the hearing that recruitment for the second line of management during last few years was also made out of persons fresh from universities/institutes and they were strained by the company. A list of persons recruited during the years 1970, 1971 and 1972 who were fresh from Institutes and colleges appear at Annexure X. It would be seen that the number of graduates/post-graduates or persons with equivalent qualifications (e.g., C.A.) recruited during the aforesaid period were rather small, looking to the size of the company. Further, the recruitment and training policies of the company have been discussed earlier in paras 2·09 and 2·10 and the mere fact that some Engineers, Commerce Graduates and Chartered Accountants were recruited by the company at the middle level does not change the basic fact that the company has no systematic and modern recruitment and training policies.

4·19 It can be claimed on behalf of the applicant company that the applicant company being already in the cement industry for quite some time, its being permitted to set up an additional cement unit would facilitate the development of a specialised approach to managing these units and thus create the possibility of more sustained efforts towards developing technology. There is undoubtedly some plausibility about this argument. At the same time, it cannot be ignored that even Mysore cements, an inter-connected but special is decompany, has not taken the desirable approach in this respect. This is obviously a shortcoming in the approach of the top management of this inter-connected group. What should possibly be looked for is a method by which the control of the present top management can be diluted and some other elements introduced at the top which would bring to bear a more professional and modern approach supplementing the present one.

Illustration to show quality of managements

4·20 So far as the shortcoming in the approach of the top management of the applicant company and its inter-connected undertakings are concerned, we would like to mention a glaring instance which has come to our notice and which reflects adversely upon the quality of the management of the applicant company. It had come to the notice of the Commission that Shri S.P. Chhaochharia, son of Shri R.K. Chhaochharia, President of the applicant company, was appointed as a Management Trainee in the said company w.e.f., 1st April, 1963 on a remuneration of Rs. 1,000/- per month with Provident Fund facilities. Shri S.P. Chhaochharia was paid much higher salary/income in the subsequent years as would be seen from the following figures:—

Financial year	*Income under the head salary*	
1963-64	Rs.	13,000
1964-65	Rs.	15,600
1965-66	Rs.	15,900
1966-67	Rs.	36,300
1967-68	Rs.	44,875
Total	Rs.	1,25,675

4·21 According to the letter of appointment dated 18th March, 1963 issued in favour of Shri S.P. Chhaochharia, he was appointed as a 'trainee' when he had already secured admission at Birla Institute of Technology, Ranchi, for qualifying as an Electrical Engineer and was required to attend to the practical training at the establishment of the company in Calcutta/Birlapur only during the vacations of the college. Further, in case of default of any of the terms specified in the appointment letter, Shri S.P. Chhaochharia was liable for damages and his father Shri R.K. Chhaochharia to stand as 'guarantor' and surety for the performance of the terms and conditions specified in the letter of appointment.

4·22 Later on Shri Chhaochharia changed over from Electrical to mechanical Engineering After obtaining his degree in Mechanical Engineering, Shre Chhaochharia wrote to the company on, 1st March, 1968 saying that he had no real liking or aptitude for Mechanical Engineering and as such he was not interested in Mechanical Engineering as his life's career. He, therefore, asked for a release from any obligation to serve in the applicant company. The company *vide* its letter dated 4th March, 1968 released Shri Chhaochharia from the terms and conditions of the appointment letter and terminated the appointment w.e.f. 31st March, 68. Enquiries have revealed that this appointment was made not as a result of any recruitment programme or in response to any public advertisement, but on the basis of a verbal request to Shri R.L. Thirani, another President of the company. The applicant company has clearly admitted that it does not have any scheme as such for recruiting Management Trainees. The company does not have any specific programme for training excepting for imparting on-the-job training. The company does not have any standardised appointment letter and/or any standardised terms and conditions of appointment for its trainee. It is pertinent to mention here that the company did not recruit any other trainee during the 10 year period from 1962 to 1972. No Board resolution was passed for the appointment of Shri Chhoachharia as Management Trainee who was the solitary trainee during the aforesaid period of 10 years. As would be seen from the figures given earlier, Shri Chhoachharia was paid a sum of Rs. 1,25,675 during the financial years 1963-64 to 1967-68. There is nothing to show that he rendered any services to the company. Further, no damages were claimed from Shri Chhaochharia according to the terms and conditions of the letter of appointment.

4·23 Having regard to the above facts, it appears to be a case of an *ex-gratia* payment to the son of a Senior Executive of the company. When the representatives of the company were questioned on this point during the course of public hearing on 18th September, 1973, they had no explanation whatsoever to offer. It was merely stated that such payments may not recur n future. This glaring instance which has come to the notice of the Commission reflects adversely upon the quality of the top management of the company and lends support to the finding that the Company lacks a sense of professional management. It is still being managed on old-fashioned lines of a private business controlled by an individual owner or a family.

Bihar Government's comments on Company's proposal

4·24 The State Government of Bihar has offered the following comments on the proposal of the company:—

1. "The proposal of the company is to set up a clinker plant at Patratu and to take the clinke to Durgapur for manufacture of Slag cement. As per plans of Bokaro Steel Ltd. granulated slag for manufacture of slag cement will now be available at Bokaro. The State Government had requested the applicant company to set up the slag cement grinding unit either at Patratu or at Bokaro. No reply has so far been received by the State Government from the company. The State Government have been trying to hold a discussion with this company regarding this, but the discussion has not materialised so far.
2. The views of the State Government are that the company should set up the clinker plant at Patratu but the slag cement grinding unit may also be set up either at Patratu or at Bokaro. Power is available for the proposed plant at Patratu. There is sufficient limestone for one cement plant but the applicant company is not holding any mining lease for limestone in this area. But a prospecting licence has been granted to M/s. Birla Jute Manufacturing Company for limestone in 638 acres in village Uparbarga of Hazaribagh District."

In view of the fact that the company has already been granted a COB licence for manufacturing Slag Cement at Durgapur, the plant is already in the process of being set up, and the clinker plant proposed to be set up at Patratu is in fact merely a captive unit for the Durgapur cement plant it is not practicable at this stage to consider the suggestion of the State Government of Bihar that the company may set up a slag cement grinding unit also at Patratu itself. The company has already entered into a long term agreement with M/s. Hindustan Steel for buying slag from Durgapur Steel Plant. The question of utilising the granulated slag produced at Bokaro cannot also be considered in connection with the present proposal.

CHAPTER V

SCHEME OF FINANCE

5·01 According to the particulars furnished by the Company in its application the total capital outlay on the proposed project was estimated at Rs. 525 lacs. Subsequently, the company has revised its estimate having regard to the fact that the application was made in September, 1972 and since then there has been some escalation in costs. The revised capital outlay of the project has now been shown at Rs. 600 lacs.

5·02 The details of the revised financial outlay for the proposed project are as under:—

TABLE 10

		(Rs. in lacs)
Land and Development	—20	20
Building : (a) Housing Colony	—30	
(b) Factory Building	—75	
Total (a+b)	——	105
Plant and Machinery		
(a) Water Supply	—6	
(b) Railway Site	—15	
(c) Workshop and Laboratory	—4	
Main Plant upto Clinker State including quarry:		
(a) Equipment and Electricals etc.	—400	
(b) Erection	—35	
Pre-operation and Proving expenses	—15	
Total Machinery	——	475
Grand Total		600

Sources of Funds

5·03 The company has submitted a cash flow which is placed at Annexure XI. A summary of the cash flow is given below:—

TABLE 11

	Source of Funds	(Rs. in lacs) *Amount*
1.	Profit for four years (1972-73 to 1975-76)	2440·84
2.	Debentures—8% 1981/83	100·00
3.	Term Loan for Durgapur Cement Works	150·00
4.	Deferred payment/Term Loan for patratu Project	150·00
5.	Working Capital Loan—(Durgapur Cement Works)	60·00
6.	Working Capital loan—Patratu Project	50·00
7.	Tax Refund	30·00
8.	Investments Sold	9·52
9.	Decrease in Stocks etc.	96·41
	Total	3086·77
	Utilisation	
1.	Dividend	225·12
2.	Repayment of Term Loan—Durgapur Cement Works	75·00
3.	Deferred payments for Units other than Patratu	32·77
4.	Tax liability	644·00

5. Fixed Assets	Patratu Project	600·00
	Durgapur Project	457·80
	Others units	243·73
6. Working capital	Patratu Project	75·00
	Durgapur Cement Works	100·00
7. Investment	Bihar Alloy Steels	50·00
	Others	·06
8. Loans to Bihar Alloy Steels		450·00
9. Increase in stocks etc.		64·25
Total		3028·73
Surplus/Deficit for the year		58·04
Add: Opening Surplus		89·13
Closing Surplus		147·17

The company has submitted the aforesaid cashflow on the basis that the completion of company's formalities with Government Departments will be completed by December, 1973 and that the completion and trial runs of the project will be taken from February, 1976.

Analysis of Cash Flow Statement

5·04 The Cash Flow statement (Annexure XI) indicates that the company will rely solely on internal generation for financing the proposed project. As a matter of fact the internal generation is also proposed to be utilised for financing the Durgapur Project as well as for advancing a loan of Rs. 450 lacs to Bihar Alloy Steels. It further appears that the company has given an undertaking to Bihar Alloys Steels as also to the financial institutions that it will bring in additional funds by way of unsecured loans, deposits upto a maximum of Rs. 150 lacs to meet any shortfall in financing the cost of the project and or working capital loans acceptable to the financial institutions and also a further undertaking that should be over run on the project including working capital requirement exceed the aforesaid Rs. 150 lacs, the company and Bihar Alloy Steels would procure such excess finance by way of unsecured loans and or deposits on terms acceptable to the financial institutions. It may be mentioned here that the scheme of finance does not take into consideration these financial commitments of the company.

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Internal Generation

5·05 The projected balance-sheets and profit and less accounts submitted by the company for the years 1972-73 to 1975-76 have been analysed and the financial data has been summarised in the following manner:—

(a) Statement showing cost of sales and profit	Annexure XII
(b) Statement showing financial position	Annexure XIII
(c) Statement showing financial ratios	Annexure XIV

The company has taken credit for a gross internal generation of Rs. 2,440·84 lacs and a net internal generation (after providing for tax and dividend) of Rs. 1,560·72 lacs during the project period. As against this, the net internal generation during the last 4 years (after providing for tax and dividends) has been much lower i.e. Rs. 1,025·81 lacs. The data regarding gross and net internal generation during the past four years and the project period is as under:—

TABLE 12

Internal Generation of Funds from 1968-69 *to* 1975-76

Year (1)	Gross profit before depreciation, development, rebates and taxes (2)	Tax Provisions (3)	Dividend (4)	Net Internal generation (5)
Actuals				
1968-69	309·61	54·00	38·31	217·30
1969-70	451·01	110·00	44·30	296·71

1	2	3	4	5
1970-71	456·51	141·00	52·28	263·23
1971-72	434·84	130·00	56·27	248·57
	1651·97	435·00	191·16	1025·81
Projections				
1972-73	530·84	155·00	56·28	319·56
1973-74	555·00	100·00	56·28	398·72
1974-75	665·08	200·00	56·28	408·72
1975-76	690·00	200·00	56·28	433·72
	2440·84	655·00	225·12	1569·72

Sales Estimates

5.06 The turnover of the company during the last 4 years has been as under:—

Year	(Rs. in lacs) *Turnover*
1968-69	2,228·17
1969-70	2,401·00
1970-71	2,682·56
1971-72	2,962·72

The company has given the following estimates of its turnover during the project period:—

1972-73	3,619·29
1973-74	3,422·00
1974-75	4,124·50
1975-76	4,339·50

It will be observed from the above data that the turnover during the year 1972-73 is expected to increase by Rs. 657 lacs as compared to the year 1971-72 (which works out to an increase of 22·2%). The increases in the estimates of sales for the years 1974-75 and 1975-76 are still higher.

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Examination of estimates of sales

5.07 The increases in the estimates of sales for all these years are primarily on account of increases in the estimtes of sales of the Cement Division. According to the company the Durgapur Cement Plant will go into production in 1974. The company has estimated the sales of the Durgapur Plant at Rs. 30, Rs. 503 and Rs. 681 lacs during the years 1973-74, 1974-75 and 1975-76 respectively. The company has also estimated higher sales for Satna and Chittorgarh (Birla Cement) plants during the entire project period. This would be evident from the following combined sales figures of Satna and Chittorgarph plants for 1969-70 to 1975-76:—

TABLE 13

	(Rs. in lacs)
1969-70	1,077
1970-71	1,066
1971-72	1,090
1972-73	1,571
1973-74	1 382
1974-75	1,586
1975-76	1,608

5.08 So far as the Durgapur Cement Plant is concerned, the estimates of sales are based on the assumption that the plant will go into production by the beginning of 1974. In this connection, it is pertinent to mention here that so long as the Patratu Plant does not go into production the production of cement at Durgapur Plant would depend upon the availability of Clinker from Satna Plant which, in turn, will depend upon the availability of wagons. The requirement of wagons can be imagined from the fact that according to the company 1·4 and 1·8 lac tonnes of Clinker will have to be transported from Satna to Durgapur during the years 1974-75 and 1975-76 respectively. In view of this, the estimates given by the company cannot be relied upon completely.

5.09 So far as the estimates of sales for Satna and Chittorgarh plants are concerned, the main reason for the increase in sales is the increase in the capacity of Chittorgarh plant from 2 lac tonnes to 4 lac tonnes. So far as the year 1972-73 is concerned, it has been stated that cement and clinker stocks had piled up in the year 1971-72 and this was responsible for higher production and despatches of cement during the year 1972-73. In support of this, the company has furnished the following figures:—

TABLE 14

(*In tonnes*)

	1971-72		1972-73	
	Santa	Chittorgarh	Santa	Chittorgarh
Cement Production .	546422	264632	685805	373018
Despatches . . .	454378	264159	703808	379315

It is pertinent to mention here that the capacity utilisation in these two cement plants in the year 1972-73 was 107.8% (production of 10,58,823 tonnes as against the installed capacity of 9,81,000 tonnes). Even in the years 1969-70 and 1970-71 the company was able to achieve a production of more than the rated capacity. Having regard to the prevailing power and wagons shortages, it may not be possible to assume a production of more than the rated capacity. In view of this the estimates of sales of cement for 1974-75 and 1975-76 are considerably on the high side.

5.10 In regard to the Calcium Carbide Division, the maximum sales of Rs. 250 lacs were achieved during the year 1971-72 whereas the company has estimated the sales during the year 1973-74, 1974-75 and 1975-76 at Rs. 265, Rs. 275 and Rs. 280 lacs respectively. Having regard to the fact that the installed capacity of Calcium Carbide Division is 12,300 tonnes and the company had achieved a production level of 14,329 tonnes in 1971-72, it is not likely to exceed the sales figure for the year 1971-72 any time during the project period.

5.11 As regards to Staple Fibre Division, the maximum figures of actual sales was Rs. 511 lacs during the year 1971-72 whereas the company has estimted the sales at Rs. 651, Rs. 630, Rs. 640 and Rs. 650 lacs during the four years of the project period. It has been stated that the company expects a substantial increase in the sales of staple fibre on account of heavy demand of fabrics from Bengla Desh which has contributed to the increase in the internal demand of yarn. There is no definite evidence to show that the estimates of sales for the project period would be more than 25% of the peak figure of sales achieved during the year 1971-72. The lower estimate of sales for the year 1973-74 has been attributed to the reduced supply of stable yarn.

Gross Profit Ratios for Company—Past and Project Periods

5.12 The overall gross profit margins of the applicant company during the previous years and in the project period are given in the following table:—

TABLE 15

Year	Sales	Gross profit (after depreciation but before development rebate and taxes)	Percentage of gross profit to sales
1967-68	2,167·38	138·69	6·3
1968-69	2,228·17	162·81	7·3
1969-70	2,401·00	306·34	12·7
1970-71	2,682·56	327·43	12·4
1971-72	2,962·72	246·27	8·3
Projections			
1972-73	3,619·29	349·84	9·6
1973-74	3,422·00	313·00	9·6
1974-75	4,125·50	448·00	10·8
1975-76	4,339·50	495·00	11·4

A perusal of the above data would indicate that the company had earned gross profit rates ranging from 6.3% to 12.7% during the last 5 years (1967-68 to 1971-72) whereas during the period 1972-73 to 1975-76 it hopes to earn gross profit rates unranging between 9·1 to 11·4%. The overall gross profit rates for the project period do not appear to be reasonable but as would be seen from the succeeding para the position is different when division-wise profit ratios are considered.

Division-wise profitability

5.13 The company was asked to furnish its division-wise ratios of gross profit (after depreciation but before development rebate and taxation) to sales (net of excise). The data in regard to the division-wise profitability for the past 4 years and for the project period is given in Annexures XV and XVI respectively. A perusal of the division-wise gross profit ratios to sales indicates that the gross profit estimates for the project period, specially those relating to Calcium Carbide and staple Fibre Divisions are on the high side. So far as Calcium Carbide Division is concerned, the gross profits after depreciation ranged from 13.7% to 21.22% during the past four years whereas the company has assumed gross profit ratios varying between 23·6% and 24.9% during the years 1973-74 to 1975-76. During the last 4 years the gross profit ratios after depreciation for staple fibre Division ranged between 2.31% and 8·9% as against an estimate of 14% for the project period. The other estimates of gross profits appear to be reasonable.

Company's case regarding gross profit rates

5.14 The company has tried to justify the increased profitability of staple fibre and Calcium Carbide Divisions on the following grounds:—

(a) During 1972-73 due to demand from Bengla Desh and improved internal demand the profitability of Staple Fibre Division improved to 15%. The company anticipates the trend to continue.

(b) Power is a major factor in the working of the Calcium Carbide Plant. In anticipation of improved power supply the company expects the efficiency of Carbide Plant to improve.

There has been some increase in the selling price of Staple fibre from the year 1971 to 1973 and this may justify some increase in the profit ratios for the Staple Fibre Division. The position regarding the Calcium Carbide Division of the company is, however, quite different. The company has assumed that the power supply would improve. The Calcium Carbide Unit of the company is located in 24 Parganas, West Bengal. The power supply position in West Bengal is not good and the prevailing power shortages are likely to persist for some time. In view of this, the contention of the company regarding the increase in the profitability of the Calcium Carbide Division cannot be accepted at its face value and there is likely to be shortfall in the profit ratios as assumed by the company.

Return of Capital employed

5.15 The data regarding the return on capital employed during the lsast 5 years and the estimated return during the project period are given below:—

TABLE 16

Year	Average capital employed	Gross profit (after depreciation but before development and taxes)	Percentage return on capital employed
1	2	3	4
Actuals			
1967-68	1549·82	138·69	8·9
1968-69	1587·17	162·81	10·2
1969-70	1645·73	306·34	18·6
1970-71	1682·82	327·43	20·1
1971-72	1703·36	246·27	14·4
1972-73	1880·02	349·84	18·6
1973-74	2182·32	313·00	14·3
1974-75	2383·46	448·00	18·7
1975-76	2662.41	495.00	18.7

(NOTE:—In working out the gross profit figures the interest has not been added back for the sale of uniformity. If it is adjusted the return will be still higher.)

It will be observed from the above data that the average return of gross profit on capital employed during the period 1967-68 to 1971-72 came to 12.7% although the highest figure was 20.1% during the year 1970-71. As against this, the return during the years 1972-73 to 1975-76 has been assumed between 14.3% to 18.7%. Thus the margin on capital employed, estimated during the project period is higher than the average return earned by the company during the past five years.

Proposed loan of Rs. 4.5 crores to Bihar Alloy Steel Limited

5.16 M/s. Bihar Alloy Steel Limited was a subsidiary of the applicant company until 14th July, 1971. According to the latest available balance sheet the applicant company holds 2,50,000 equity shares of Rs. 10 each. As per the Director's report of Bihar Alloy Steel Ltd. the applicant company is expected to meet the gap in the requirements of the Alloy Steel Project of the said company left after raising equity capital of Rs. 800 lacs, and long-term rupee and foreign exchange loans from financial institutions. The relevant para of the Director's report is reproduced below:—

> "To implement this project, your Directors have decided to raise a total capital of Rs. 800 lacs consisting of equity capital of Rs. 700 lacs and preference capital of Rs. 100 lacs. The capital is proposed to be raised from the Financial Institutions and the public besides the existing shareholders of the Company and others. The balance of the requirement would be met from long-term foreign exchange loans and rupee loans from the financial Institutions and Birla Jute Mfg. Company Limited."

From the cash flow statement of the company it is clear that it would be required to spare Rs. 450 lacs to M/s. Bihar Alloy Steels Ltd. Further as mentioned in para 5.04 above the company will have some further financial commitments in this regard. In this connection, the company has made the following submission:—

> "The loan to Bihar Alloy Steel Limited: This was sanctioned when the said company was a subsidiary of this company, as such, it did not attract Section 370 of the Companies Act."

The compliance of the provisions of the Indian Companies Act in regard to this loan would no doubt be looked into by the Department of Company Affairs and the Commission is merely concerned with the possible outgo from the 'internal generation of funds'.

Revised Cash Flow Statement

5.17 During the course of the public hearing on 18th September, 1973 the representatives of the company submitted to the Commission that the cash flow statement as submitted by the company earlier needs to be further revised in view of the recent increase of Rs. 10 per tonne in the price of cement and some other factors which were formerly not taken into consideration. The company has on 19th September, 1973 submitted a revised cash flow statement (Annexure XVII) which is summarised below:—

TABLE 17

	Sources of Funds	(Rs. in lacs) *Amount*
1.	Profit for four years (1972-73 to 1975-76)	2,416·69
2.	Debentures—8% 1981-83	100·00
3.	Short-term loan for Durgapur Cement Works	150.00
4.	Deferred payment/short-term loan for Patratu Project	150.00
5.	Working capital loan—Durgapur Cement Works (cash credit A/C)	60.00
6.	Working capital loan—Patratu Project (Cash Credit A/C)	50.00
7.	Tax Refund	30·00
8.	Investment Sold	9.52
9.	Decrease in Stocks etc.	96.41
10.	Interest free loan under West Bengal Incentive Scheme Durgapur Cement Works	32.00
11.	Additional accuals due to:	
	(a) Reduction in export duty on Jute Goods	50·00
	(b) Increase in retention price of cement @ Rs. 5 per tonne (while assessing the profits of Cement Division the company claims to have assumed an increase of Rs. 5 per tonne)	172.98
	(c) Reduction in tax liability under the Direct Taxes (Amendment) Bill, 1973 on account of—	
	(i) Initial depreciation	75.98
	(ii) Tax exemption on 20% of profit for industry (Durgapur Project) being in backward area	2.31
	Total	3,395.69

Utilisation of Funds

1.	Dividends		252.15
2.	Repayment of Short-term Loan—Durgapur Cement Works		100·00
3.	Deferred payment for Units other than Patratu		29·31
4.	Tax liability		655·00
5.	Fixed Assets	—Durgapur Cement Works	457.80
		—Other Units	257.71
		—Patratu Project	600.00
6.	Working Capital	—Durgapur Cement Works	100·00
		—Patratu Project	75·00
7.	Investments	—Bihar Alloy Steel Ltd.	50·00
		—Others	0·06
8.	Loan to Bihar Alloys Steels Limited		450·00
9.	Increase in Stocks etc.		64.25
10.	Additional tax liability on increase in profits as per item 11(1) and 11(b) above		129·74
		Total	3,221.02
	Surplus/Deficit for the year		174·67
	Add Opening surplus		89·13
	Closing surplus		263·80

5.18 The important changes in the revised cash flow statement submitted by the company are discussed below:—

(a) The company has substituted the estimated figures for the financial year 1972-73 by the actual figures which are since available. This is in order.

(b) The company has shown Rs. 32 lacs as interest free loan under West Bengal Incentive Scheme for Durgapur Cement Works during the financial year 1973-74. The existing units in the industrially developed areas of West Bengal with an average Central and State Sales Tax liability of Rs. 3 lacs or more per year during the last three years are entitled to a return of sales tax credited by them during preceding three years by way of interest free loan for their new projects or for substantial expansion of their existing units in the State. It has been claimed that the company had paid Rs. 32 lacs by way of Sales tax to the State of West Bengal during the preceding three years and as such would be entitled to an interest free loan of the said amount. According to the Package Scheme of Incentives for Development of Industries in West Bengal, the company is entitled to an interest free loan.

(c) The company has claimed increase in profits to the tune of Rs. 50 lacs, on account of decrease in export duty from Rs. 600 per tonne to Rs. 200 per tonne on hessian and from Rs. 150 per tonne to nil on sacking (cloth and bags). The company had paid Rs. 40.666 lacs and Rs. 63.029 lacs on account of Export Duty during the financial years 1971-72 and 1972-73 respectively. The company has claimed additional profits of Rs. 10 lacs, 20 lacs and 20 lacs on account of reduction in export duty during the financial years 1973-74, 1974-75 and 1975-76 respectively. If the company succeeds in maintaining its exports at 1972-73 level, the estimates of additional profits made by the company may be achieved.

(d) The company has claimed the entire amount of Rs. 172·98 lacs, which is likely to accrue to it on account of the increase in the price of cement by Rs. 10 per tonne as against Rs. 5 per tonnes assumed by the company earlier, as additional profits arising to the company. The Central Government has on the recommendation of the Tariff Commission recently allowed an interim increase in the price of cement by Rs. 10 per tonne. In view of the rising prices, the cost of manufacture of cement in the coming years is likely to go up. In this connection it is pertinent to mention here that an interim increase in the wages in the cement industry has already been allowed since 1st June, 1972 and further bipartite negotiations are still going on. The entire price differential may not, therefore, be available to the company as additional profits. It is further pertinent to mention here that the company's margins of gross profit (before depreciation) in Satna and Chittorgarh Cement Plants were 25.39% and 28.10% during the financial year 1970-71 and the corresponding figures for the year 1971-72 were 22.78% and 31.27%. The profitability ratios are fairly high and it may not be possible for the company to raise these figures substantially which would be position if the entire price differential is assumed as additional profits. It is felt that it would be more realistic to assume a profit margin of 25% or so on the additional amount of Rs. 172.98 lacs which may accrue to the company as a result of the increase in the price of cement. Proceeding on this basis the additional profits would come to Rs. 43.25 lacs as against the figure of Rs. 172.98 assumed by the company.

(e) The company has claimed additional generation of funds to the tune of Rs. 75.98 lacs on account of initial depreciation proposed under the Direct Taxes (Amendment) Bill, 1973 Rs. 72.23 lacs have been claimed on the Patratu Plant itself. This amount will be admissible to the company only after the completion of the Patratu plant and as such may not be forthcoming till March, 1976. Even according to the company the patratu plant is expected to be commissioned only in February, 1976. This is not likely to be achieved as normally a cement plant takes 36 months for commissioning after completion of legal and governmental formalities. Further, an amount which will accrue only after the completion of a plant cannot be considered for financing the same plant.

(f) The company has shown an outgo of Rs. 129.74 lacs on account of additional tax liability on profits referred to in items (c) & (d) above. In view of the adjustments discussed under item (d), the tax liability will go down by Rs. 75·4 lacs.

5.19 In view of the above discussions, the closing surplus of the company will be reduced from Rs. 263.80 lacs to Rs. 137.24 lacs. This amount will be further reduced when the estimates of sales and margins of profit are based on more realistic assumptions as discussed in paras 5.07 to 5.14 above.

Views of Departments of Banking and Economic Affairs

5.20 The Departments of Banking and Economic Affairs had earlier offered the following comments on the project of the company and its original scheme of Finance:—

Department of Banking

> "By this application, the company has asked for permission to set up a plant at Patratu, District Hazaribagh, Bihar, for manufacture of 3·50 lakhs tonnes of cement clinkers per year. It may, however, be pointed out that although the company has made an application under section 22 of the M.R.T.P. Act, but as it proposed to establish the plant as a unit of its own and not incorporate a separate company for this purpose, the application should have appropriately be made under section 21 and not under section 22. However, since the considerations that normally weigh for approval or otherwise of the proposal are the same, the application has been examined on its merits. The cost of the project is estimated to be Rs. 525 lakhs and the company expects to finance the project from its internal resources. In view of the large capital outlay necessary for the project, the Department of Company Affairs may consider advising M/s. Birla Jute Mfg. Co. Limited to set up the new plant, as a new company in which M/s. Birla Jute Mfg. Co. Ltd. could be permitted to take some intercorporate investment. The applicant being a company belonging to one of the larger industrial groups and as the project involves diversification away from its normal lines of business it may be considered if it would be preferable to refer the application to the monopolies Enquiry Commission for advice."

Department of Economic Affairs

> "It is not clear whether the applicant company desires to set up a new company or an additional unit of the existing company. On formation of new companies, views of this Department in regard to the pattern of shareholding are already known to your Department. As for setting up of an additional unit of the existing company, we have examined the internal resources position and it is likely that the scheme of finance may be found acceptable to this Department but in this connection we would like to know details with regard to the shareholdings by promoters and their interconnected companies. Information available in this Department, which is being given below, is found to be insufficient:

TABLE 18

		(Rs. in lakhs)	
(i)	Non-resident	0·68	0·2%
(ii)	Directors	24.49	6.1%
(iii)	L.I.C. Unit	26·97	6·7%
(iv)	Companies registered under the Companies Act	119·60	30·0%
(v)	Other including one share-holder holding Rs. 28 lacs worth of shares	227·16	57·0%
		398·90	100·00

> As you will observe, the last two groups of shareholders hold 87% of the equity shares but is not known how much is held by the promoters and companies with which they are interconnected. This information is required with a view to determining the extent of disinvestment so that the applicant company, which is already listed, is made to confirm to the listing requirements currently in force."

Subsequently when the shareholding pattern indicating 45·3% holding of Birla and interconnected companies etc. was made available to Department of Economic Affairs they expressed the following views:—

> "The Scheme of finance is acceptable if the company goes for term loans from public financial institutions to meet the gap in resources and further that, provided the pattern of shareholding as on 29th September, 1970 furnished by the Department of Company Affairs vide letter No. 2(6)/72-M (I), dated the 4th December, 1972 obtained at present also, this Department would suggest that the Birla Group holding amounting to 45·3 per cent need not be reduced to 40% by dis-investment. The objective may be achieved when the applicant company comes up for issue of additional capital in future."

Conclusion

5.21 From the foregoing discussions, it would appear that the scheme of finance submitted by the company is not wholly based on realistic assumptions and as such the generation of funds may not be of the magnitude expected by the company and the closing cash surplus may not be any significant amount. It may be mentioned here that according to the revised cash flow (Annexure XVII) submitted by the company, it is proposed to obtain term loans of Rs. 150 lacs each for Durgapur Cement Works as well as for the Patratu Project. So far as the Patratu is concerned the company has in the alternative suggested a scheme of deferred payments. Thus even according to the company's first proposal, it will have to use term loans to the extent of Rs. 300 lacs in order to make up the deficiencies in its requirements of finance. The requirements of term loans may go up by Rs. 150 lacs in case the company is called upon to meet its financial commitment to M/s. Bihar Alloy Steels Limited as referred to in para 5·04 above. Thus the total requirements of the company for the term loans may be of the order of Rs. 450 lacs. So far as the requirements of 300 lacs for the Durgapur Cement Plan and the Patratu project are concerned, the same are essentially long-term requirements for capital projects. In view of this, we are of the opinion that the scheme of finance should be so modified as to provide for long-term loans or fresh equity. This matter has been discussed in our conclusions and recommendations.

CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

6·01 Our examination of various aspect of the application suggests that the proposal to set up a new cement Clinker plant at Patratu in the district of Hazaribagh, Bihar, is in itself a commendble one. The additional capacity is necessary to ensure the proper functioning of the Durgapur cement plant of the Company, and this in turn is important to satisfy the growing demand for cement in the national economy. Moreover, the proposed location is in a backward district and, through utilisation of locally available raw materials and by providing additional employment to the population in an under-developed area, it will significantly help not only economic growth but reduction in regional economic disparities. The size of the plant is also likely to give appropriate economic of scale, provided raw materials of the required quality are found to be available in the required quantities. We assume that this last aspect will be given due consideration by the Industrial Licensing authorities before the necessary industrial licence is finally granted.

6·02 The main doubts regarding approval of the proposal in its present form arise on other grounds. As indicated earlier, the applicant Company is in the nature of a conglomerate and, in spite of its financial success, shows in its organisation and management certain inadequacies especially in respect of personnel management and the development of R & D. To the extent that these inadequacies may be considered as arising because of the conglomerate character of the Company, an appropriate remedy would have been to suggest that its existing as well as the proposed cement units should be managed by a separate and newly organised company in which the applicant Company may hold a certain proportion of equity. This would have made it possible for the management to focus its attention specially on problems affecting cement technology and might have been expected to make up to some extent the inadequacies which we have mentioned. It would also reduce the concentration of economic power represented by the Company which would be enhanced with the proposed expansion.

6·03 This alternative, however, does not appear to be a practicable one in the present context as the separation of the cement units at Satna and Chittargarh from the existing company is likely to give rise to many complex problems, especially those arising because of tax considerations, which may make the proposal difficult to implement. If only the proposed new cement plant is to be managed by a new Company in which the applicant Company would hold a certain proportion of equity, the advantages that the new plant may be expected to obtain because of the experience that the applicant Company has already obtained in the setting up and operation of a cement plant may not be available to it to the fullest possible extent. Further, this is a proposal for a captive plant and as such cannot be separated from the main plant which is being set up at Durgapur. It does not, therefore, seems practicable at this stage to think of this alternative. At a suitable stage, it may, however, be useful to think of bringing together under a common specialised management the cement units of the various inter-connected companies of the Birla Group.

6.04 As we have explained in Chapter IV, our examination of data regarding not only the applicant Company but also of the other inter-connected companies producing cement, and a comparison between these and the ACC, have shown that the inadequacies which we have mentioned appear to arise in all these inter-connected companies and the approach of their top management has probably much to do with it. None of these companies have adopted the kind of approach to personnel management—systemtic recruitment, training and development—and the development of R & D that we find prevalent in the ACC. This is likely to be due to the approach of the top managements of these companies. Their record in terms of financial management has certainly been very good, but it has not been combined with modern approaches to personnel management and R & D. These latter are of special importance not only to Large Enterprises but the concerned industries as well as to the national economy. It may, therefore, be appropriate to introduce in the control of the applicant Company an outside element which may ensure that in place of the traditional and family based approach, the modern professional management approach is introduced at its controlling level. A condition to this effect would obviously be appropriate in the context of the considerations laid down under Section 28(c) and (d) of the M.R.T.P. Act.

6·05 Our examination of the Scheme of Finance presented by the applicant company has shown that the Company's expectation regarding generation of funds to meet the large bulk of the capital requirements for the new project is basd on over-optimistic assumptions regarding profits to be earned in future and other considerations. Even then the Company expects that it will have to use short term credit in one form or another to the extent of Rs. 300 lacs in order to make up the deficiencies in its requirements of finance. We do not quite appreciate the use of short term credits for what are essentially long term requirements for capital projects. In view of these conclusions of ours, it is our view that the Scheme of Finance as presented by the applicant Company will have to be significantly modified.

6·06 It is our view that Rs. 300 lacs which have to be obtained from outside sources should be by way of long term finance—and this may be either by way of additional equity or by way of term loans from public financial institutions. The Commission would prefer the former alternative.

6·07 In the first alternative, the new equity should be at least for Rs. 150 lacs, *i.e.*, 15,00,000 ordinary shares, and this should be issued in the first instance to financial institutions designated by the Central Government. Only such part of the issue as will not be subscribed by these institutions may be thrown open to the general public. In any case, the inter-connected companies (as mentioned in the amended application), their directors and relatives should not subscribe to this issue. We consider this necessary because only public financial institutions can provide an adequate countervailing force to the existing control. It is also much more likely that these institutions would be in a position to ensure the introduction of a professional element in the top management of the Company which would provide the necessary complement to strengthen the existing management where it shows certain inadequacies. It would of course be necessary that the Company's Articles of Association should be modified to provide for proportional representation on the Board.

6·08 The alternative to this approach would be that the Scheme of Finance should be so modified as to provide for term loans to the extent of Rs. 300 lacs from public financial institutions designated by the Central Government. These loans would be subject to the convertibility clause as usually prescribed by these institutions. We assume that with such a provision the institutions and the Government will be able to bring about such changes in the equity structure and the controlling Board as they consider necessary in the interest of the Company as well as that of the national economy.

6·09 When the broad details of the proposed changes in the scheme of Finance of the Company were communicated to the representatives of the applicant Company during the public hearing, they stated that they are in principle opposed to proportional representation on the Board of Directors. Even as regards the other proposals, the representatives of the Company were not in favour of the same, but asked for an opportunity to make written submissions. The Company has *vide* its letter dated 19th September, 1973 made certain detailed submissions regarding our proposals. It has been stated that the application for setting up a clinker plant should be considered in the background of the acute and critical shortage of cement in the country and the policy pronouncements and patterns followed by the Government in the matter of granting of cement licences. It has been stated that the Central Government has considered it necessry to issue licences to Monopoly Houses and dominant undertakings and Letters of Intent have been issued to Century Cement, A.C.C., D.C.M., J.K., and Ganges Mfg. Co. Ltd. without any such conditions as are being proposed by the Commission in the case of the applicant Company. It has been argued that the considerations of the public interest which are envisaged by the Monopolies and Restrictive Trade Practices Act cannot be different from the considerations taken into account by the Central Government in issuing Letters of Intent. It has been further stated that the application of the Company was not rejected earlier and was referred to the Commission whereas, in the cases of Ganges Mfg. Co. Ltd. and others, applications were previously rejected and, under the changed circumstances, Letters of Intent have been issued to them without reference to the Commission. In the end, it has been submitted that no such conditions should be attached simply because the Company's application was not previously rejected but happens, by what appears to be a mere historical accident, to have been referred to the Commission. It has been claimed that the facts and circumstances of the project proposal and the Scheme of Finance do not warrant and justify any stipulation or condition with regard to the issue of fresh capital or convertable loan, neither of which are required by the Company.

6·10 The Commission has to consider each application which is referred to it for inquiry and report on its own merits and has to apply the principles of public interest as indicated in Section 28 of the M.R.T.P. Act, 1969. Our examination has revealed serious shortcomings in the top management of the Company especially in its personnel policy and R & D efforts. We are not aware as to whether similar circumstances prevail in the cases of other companies whose applications have been cleared by the Central Government. As the final decision vests with the Central Government, it will no doubt take note of the reasons why the Commission has recommended a certain approach in this case and given an appropriate decision. The Commission can obviously not accept the plea that reference of this case is a matter of histocial accident and that therefore it should not give its findings on the basis of its own enquiry but take note of what the Central Government is alleged to have done—especially when the Commission has no knowledge of the full circumstances of the other cases. So far as the Scheme of Finance is concerned, the matter has already been discussed in detail earlier and the shortcomings in the existing Scheme of Finance have been pointed out.

6·11 After considering all the facts and circumstances of the case, our recommendations are therefore as follows:

The proposal of M/s. Birla Jute Manufacturing Company Limited for setting up a cement clinker plant of a capacity of 3·5 lacs tons at Patratu in the district of Hazaribagh, Bihar, should be approved subject to the following conditions:

1. Within one year from the date of approval, the Company should issue fresh capital to the extent of Rs. 150 lacs (15 lac ordinary shares of Rs. 10 each) and these shares should be offered in priority to public financial institutions designated by the Central Government on terms as to premium and otherwise mutually agreed upon between the institutions and the Company; in case no such agreement is arrived at, the terms will be decided by the Controller of Capital Issue whose decision will be accepted by the Company.
2. Only such of the additional issue of equity as would not be subscribed to by the designated financial institution would be thrown open for public subscription.
3. None of the inter-connected companies their directors (including those of the applicant Company) and relatives of the directors will subscribe to the new issue.
4. Alternatively, the Scheme of Finance may be so modified as to provide for long term loans to the extent of Rs. 300 lacs being obtained from public financial institutions designated by the Central Government. These loans would be subject to the appropriate convertibility clause.
5. In either case, the Articles of Association of the Company should be amended so as to provide for proportional representation on the Board of Directors.

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(Sd)
(JUSTICE J.L. NAIN)
Chairman

(Sd)
(D. SUBRAMANIAN)
Member

(Sd)
(H. K. PARANJAPE)
Member

NEW DELHI
Dated 1st October, 1973

ANNEXURES

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ANNEXURE I

List of inter-connected undertakings Controlled by the 'group'.

S.No.

1. M/s. Aditya Investment (P) Ltd.
2. M/s. Asian Distributors Ltd.
3. M/s. Bally Jute Co. Ltd.
4. M/s. Baroda Investment Co. Ltd.
5. M/s. Bharat Produce Co. Ltd.
6. M/s. Birla Bombay (P) Ltd.
7. M/s. Birla Bros (P) Ltd.
8. M/s. Gwalior (P) Ltd.
9. M/s. Birla Consultants (P) Ltd.
10. M/s. Birla Cotton Spg. & Wvg. Mills Ltd.
11. M/s. Bengal Rubber Co. Ltd.
12. M/s. Central India General Agents Ltd.
13. M/s. Central India Industries Ltd.
14. M/s. East India Investment Co. (P) Ltd.
15. M/s. Eastern India Services & Marketing Co. Ltd.
16. M/s. Godavri Corporation Ltd.
17. M/s. Gwalior Webbing Co. Ltd.
18. M/s. Gwalior Finance Corporation Ltd.
19. M/s. Hindustan Discounting Co. Ltd.
20. M/s. Indore Exporting & Importing Co. Ltd.
21. M/s. Jaipur Finance & Diary Products (P) Ltd.
22. M/s. Jansawa & Investment Ltd.
23. M/s. Jayant Investment Corporation (P) Ltd.
24. M/s. Jayshree Traders (P) Ltd.
25. M/s. Kamal Trading Company Ltd.
26. M/s. Maharashtra Commodity Trading Company Private Limited.
27. M/s. National Engineering Industries Ltd.
28. M/s. Pilani Investment Corporation Ltd.
29. M/s. Punjab Ginning & Pressing Co. Ltd.
30. M/s. Punjab Produce & Trading Co. Ltd.
31. M/s. Rajasthan Industries Ltd.
32. M/s. Shekhawati General Traders Ltd.,
33. M/s. Shree Services and Trading Co. Ltd.
34. M/s. Sutlej Cotton Mills Ltd.
35. M/s. Sutlej Cotton Mills Supply Agency Ltd.
36. M/s. Sugar Agents (P) Ltd.
37. M/s. Universal Trading Co. Ltd.
38. M/s. Zenith Distributors & Agents Ltd.

ANNEXURE N

List of 72 inter-connected undertakings controlled by the 'group'

S.No. Name of undertaking

1. M/s. Jiyajee Rao Cotton Mills Ltd.
2. M/s. Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.
3. M/s. Kesoram Industries & Cotton Mills Ltd.
4. M/s. Birla Jute Manufacturing Co. Ltd.
5. M/s. Orient Paper Mills Ltd.
6. M/s. Century Spinning & Mfg. Co. Ltd.
7. M/s. Hindustan Aluminium Corporation Ltd.
8. M/s. Mysore Cements Ltd.
9. M/s. Zuari Agro Chemicals Ltd.
10. M/s. Hindustan Motors Ltd.
11. M/s. Aditya Investment (P) Ltd.
12. M/s. Asian Distributors Ltd.
13. M/s. Bally Jute Co. Ltd.
14. M/s. Baroda Investment Co. Ltd.
15. M/s. Bharat Produce Co. Ltd.
16. M/s. Birla Bombay (P) Ltd.
17. M/s. Birla Bros (P) Ltd.
18. M/s. Birla Gwalior (P) Ltd.
19. M/s. Birla Consultants (P) Ltd.
20. M/s. Birla Cotton Spg. & Wvg. Mills Ltd.
21. M/s. Bengal Rubber Co. Ltd.
22. M/s. Central India Ceneral Agents Ltd.
23. M/s. Central India Industries Ltd.
24. M/s. East India Investment Co. (P) Ltd.
25. M/s. Eastern India Service & Marketing Co. Ltd.
26. M/s. Godavari Corporation Ltd.
27. M/s. Gwalior Webbing Co. Ltd.
28. M/s. Gwalior Finance Corporation Ltd.
29. M/s. Hindustan Discounting Co. Ltd.
30. M/s. Indore Exporting & Importing Co. Ltd.
31. M/s. Jaipur Finance & Dairy Product (P) Ltd.
32. M/s. Jansewa & Investment Ltd.
33. M/s. Jayant Investment Corporation (P) Ltd.
34. M/s. Jayshree Traders (P) Ltd.
35. M/s. Kamal Trading Company Ltd.
36. M/s. Maharashtra Commodity Trading Co. Pvt. Ltd.
37. M/s. National Engineering Industries Ltd.
38. M/s. Pilani Investment Corporation Ltd.
39. M/s. Punjab Ginning & Pressing Co. Ltd.
40. M/s. Punjab Produce & Trading Co. Ltd.
41. M/s. Rajasthan Industries Ltd.
42. M/s. Shekhawati General Traders Ltd.
43. M/s. Shree Services and Trading Co. Ltd.
44. M/s. Sutlej Cotton Mills Ltd.
45. M/s. Sutlej Cotton Mills Supply Agency Ltd.
46. M/s. Sugar Agents (P) Ltd.
47. M/s. Universal Trading Co. Ltd.
48. M/s. Zenith Distributors & Agents Ltd.
49. M/s. Atlas Iron and Alloy Ltd.
    (Subsidiary : M/s. Pilani Investment Corpn.)
50. M/s. Express Dairy Co. Ltd.
    (Subsidiary : Gwalior Webbing Co. Ltd.)
51. M/s. Gwalior Commercial Co. Ltd.
    (Subsidiary: M/s. Indore Exporting Co., Ltd.)

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52. M/s. Indistrial Trust Ltd.
    (*Subsidiary : M/s. Indore Exporting & Importing Company Ltd.)
53. M/s. Nilgiri Plantations Ltd.
    (Subsidiary : M/s. Jayant Investment Corpn. (P) Ltd.)
54. M/s. Produce & Share Brokers Ltd.
    (Subsidiary : M/s. Rajasthan Industries Ltd.)
55. M/s. Tatnakar Shipping Co. Ltd.
    (Subsidiary : M/s. Sutlej Cotton Mills Ltd.)
56. M/s. Ujjain Gen. Trading Society Ltd.
    (Subsidiary : Central India General Agents Ltd.)
57. M/s. Universal Wearing Co. (Jaipur) Ltd.
    (Subsidiary : M/s. National Engg. Industries Ltd.)
58. M/s. Bharat General & Textile Industries Ltd.
    (Subsidiary : M/s. Kesoram Industries & Cotton Mills Ltd.)
59. M/s. Hindustan Heavy Chemicals Ltd.
    (Subsidiary : M/s. Kesoram Industries & Cotton Mills Ltd.)
60. M/s. India Linoleums Limited
    (Subsidiary : M/s. Birla Jute Mfg. Co. Ltd.)
61. M/s. Assam Jute Supply Co. Ltd.
    (Subsidiary : M/s. Birla Jute Mfg. Co. Ltd,)
62. M/s. Bharat Overseas Corporation,
    (Subsidiary : M/s. Birla Jute Mfg. Co. Ltd.)
63. M/s. Hindustan Motor Corporation Ltd.
    (Subsidiary : M/s. Hindustan Motors Ltd.)
64. M/s. Uteco Limited, Calcutta.
    (Subsidiary : M/s. Hindustan Motors Ltd.)
65. M/s. Salt and Allied Indistries Ltd.
    (Subsidiary : M/s. Jiyajeerao Cotton Mills Ltd.)
66. M/s. Birla AG ZUG
    (Subsidiary : M/s. Jiyajeerao Cotton Mills Ltd.)
67. M/s. Orient General Industries Ltd.
    (Subsidiary : M/s. Orient Paper Mills Ltd.)
68. M/s. Air Conditioning Corporation Ltd.
    (Subsidiary : M/s. Orient Paper Mills Ltd.)
69. Motolite Limited
    (Subsidiary : M/s. Orient Paper Mills Ltd.)
70. M/s. Kerala Spinners Limited
    (Subsidiary : M/s. Gwalior Rayon Silk & Mfg. (Wvg.) Co. Ltd.)
71. M/s. Minerals and Minerals Ltd.
    (Subsidiary : M/s. Hindustan Aluminium Corpn. Ltd.)
72. M/s. Renusagar Power Company Limited.
    (Subsidiary : M/s. Hindustan Aluminium Corpn. Ltd.)

ANNEXURE III

THE BIRLA JUTE MANUFACTURING COMPANY LTD.

Sytem of Quality Control

JUTE MILLS DIVISION:

Standards are aid down for different qualities by Indian Standards Institution (ISI) Export Inspection Council (E.I.C.) and other inspecting agencies besides any particular specifications as required by the customers. The quality control section has to carry on its checking from selection of raw just to the finished bales and rolls to see if there is any deviation or fault or irregularity and inform the management accordingly.

The quality control section carries on a thorough routine process check. The section is also mantaining daily chart and graphs of all departments and informs the management accordingly with the deviation, tolerance and immediate action required to be taken.

CEMENT DIVISION:

The system of quality control adopted in the Cement Division is as under:—

Limestone:

This raw material is available from our own mines and samples of the same are collected and tested twice a day from the different areas on the day.

Limestone transported from Quarry to Factory is being tested at an interval of 2 hours, samples for which are being collected from Crusher and also from Trucks directly. A screen test is also conducted twice a week.

Slurry:

Samples of slurry are collected and tested from Mills after every hour. The same are also tested from a full silo and also twice a day from the Basins.

Laterite:

Laterite is being tested from individuals receipts and samples are bing collected from the trucks, stock yards etc.

Clinker:

Samples of Clinker are collected from the kiln discharge and tested on hourly basis. Complete Analysis of the average of the day is also conducted and special tests are also conducted from time to time.

Coal:

Samples of Coal are collected from each Mills, 9 times a day and tested accordingly. On every receipt also samples are collected and tested from the Wagons or Trucks as the case may be.

Cement:

Samples of Cement are collected from Mills as well as from Packing Station every hour and complete analysis of the average of the day is also made.

Gypsum:

Samples of Gypsum are collected from each wagon at the time of receipt of the same. Special tests are also done on the samples collected from stock yards.

In this manner all raw materials, process goods and finished product are tested very carefully.

CALCIUM CARBIDE DIVISION:

Birla Jute Mfg. Co. Ltd. (Calcium Carbide Division) produces 'B' quality Calcium Carbide as per IS: 1040-1960. We have a fullfledged Laboratory. After each tapping of carbide from the furnace, a representative sample is drawn and tested. The material is graded as per the Gas Yield as prescribed in IS: 1040-1960.

STAPLE FIBRE DIVISION:

The activities of the quality Control Section in this Division centres around the following aspects:

1. Product checking from basic raw materials and products.
2. Processing behaviour of the machine and materials at all stages.
3. Preventive Maintenance of machines to reduce downtime and increase utilisation.
4. Work, Method and Time Study.
5. Waste Control.
6. Testing both Physical and Chemicals.
7. Humidity check-up and control.
8. Development work in respect of product, processing behaviour and machinery modifications; and
9. Maintenance of Technical Library.

ANNEXURE IV

CEMENT INDUSTRY

Position about the Installed Capacity and Licensed Capacity as on 25th August, 1973

Zone	Installed capacity	Licensed issue	COB Licences	Letters of Intent Issued	Total
North Zone					
(J&K. Pb., Haryana, U.P., H.P., Rajasthan)	3·43	0·37 (UP)	0·25 (Raj) 0·60 (Raj)		
			0·85	4·02	8·67
East Zone					
(WB, Assam, Bihar, Orissa)	3·29	0·20 (Assam)	0·60 (WB) 0·20 (Meghalya) 0·33 (Bihar)		
			1·13	1·12	5·74
West Zone					
(M.P. Gujarat, Maharashtra)	5·61	..	0·60 (MP)		
			0·60	2·51	8·72
South Zone					
(A.P., Tamilnadu, Kerala)	7·43	0·50 (TN) 0·30 (TN) 0·10 (AP)	..		
		0·60		1·89	9·92
TOTAL	19·76	1·17	2·58	9·54	33·05

Source: Ministry of Industrial Development.

ANNEXURE V

CEMENT INDUSTRY

List of letters of Intent Issued (*As on* 25-8-1973)

Sl. No.		Location	Capacity (lakh tonnes)
*1.	Cement Corpn. of India, New Delhi	Rajban (HP)	2·00 (Portland)
2.	Do.	Mandhar (MP)	1·80 (Slag)
*3.	J&K Minerals Ltd., Srinagar	Rasholi (J&K)	2·00
4.	The Palamau Cement Company Calcutta	Bhawanathpur (Palamau-Bihar)	2·50 (Portland)
5.	Panyam Cement & Mineral Ind. Ltd., Karnool (AP)	Sullurpet (AP)	0·45 (White)
6.	Hosdurga Cement & Chem. Ltd. Bangalore-2.	Mallapur, Taluk Hosdurga, Dt. Chitradurga (Mysore)	2·00 (Portland)
*7.	Gujarat Ind. Investment Corpn. Ltd. Ahmedabad-9.	Jaffrabad Distt. Jaffrabad (Gujarat)	2·00 (Portland)
*8.	U.P. State Cement Corpn. Ltd. Churk	Distt. Mirzapur (UP)	4·32 (Portland)
*9.	Do.	Dt. Pithorgarh (UP)	4·32 (Portland)
10.	Hindustan Sugar Mills, Ltd.	Udaipur (Rajasthan)	3·00 (Portland)
*11.	West Bengal Ind. Dev. Corpn. Limited, Calcutta	Jhalda, Purulia Distt. (West Bengal)	2·00 (Portland)
*12.	Cement Corpn. of India Ltd. New Delhi	Baruwala, Distt. (Dehradun) (U.P.)	2·00 (Portland)
13.	Panyam Cement & Mineral Ind. Ltd.	Tornagullu, Taluk Bellary Distt. (Mysore)	1·00 (Portland)
14.	B.N. Bhaskar, Managing Director, The Ishwar Ind. Ltd., New Delhi	Bundi Distt. Bundi (Raj.)	2·00 (Portland)
15.	R.P. Sinha Cement Ltd. Shahbad (Bihar)	Vill. Rampur P.S. Rohtas Dt. Shahabad (Bihar)	2·00 (Portland)
*16.	Himachal Pradesh Mineral & Ind. Dev. Corpn. Limited. Simla.	Samleti Distt. Kangra (HP)	2·00 (Portland)
*17.	J&K Mineral Ltd. The Bund, Srinagar	Vill, Khrew, Tech. Pulwana Dt. Anantnag (J&K)	1·04 (Portland)
*18.	Mysore Iron & Steel Ltd. Bhadravati, Mysore.	Bhadravati, Dt. Shimoga (Mysore)	0·70 (Slag)
*19.	Cement Corpn. of India. Ltd., New Delhi.	Allahabad, Dt. Adilabad (A.P.)	4·00 (Portland)
*20.	Do.	Tandur, Dt. Hyderabad (AP)	4·00 (Portland)
*21.	Do.	Yerraguntla, Tah (Kamalapuram (Sub Taluk) Dt. Guddapah (A.P.)	4·00 (Portland)
22.	Rohtas Ind. Ltd., New Delhi-1	Dalmianagar (Bihar)	2·22 (Slag)
23.	Dalmia Cement (P) Ltd. New Delhi-1	Dalmiapuram, Distt. Tiruchirapalli, (T.N.)	0·66 (Shaft Kiln Portland)
24.	Ashoka Cement Ltd., New Delhi	Chandrapura, Dt. Hazaribagh (Bihar)	2·36 (Slag) Split Location

Sl No.		Location	Capacity (lakh tonnes)
25.	Ashoka Cement Ltd., Dalmianagar	Asansol Dt. Burdwan (West Bengal)	2·60 (Slag) Split Location
26.	Cement & Chemicals India Ltd., Madras	Chanaka (Maharashtra)	3·30 (Portland)
27.	The Delhi Cloth & Genl. Mills Co. Ltd., New Delhi-55	Teh : Banas Dt. Sirohi (Rajasthan)	8·00 (Portland)
28.	Cement Corpn. of India Ltd. New Delhi	Vill. Bisalwas, Tech: Jawad Dt. Mandsaur (MP) (Neemuch)	4·00 (Portland)
29.	Century Cement, Bombay	Maihar Dt. Satna (MP)	7·50 (Portland)
30.	A.C.C. Ltd., Bombay	Near Sednra Rly. Station Teh : Jaitaran Distt. Pali (Paj)	6·60 (Portland)
31.	A.C.C. Ltd., Bombay	Bhupendra Teh : Kalka Distt. Ambala (Haryana)	3·00 (Portland)
32.	Do.	Wadi, Teh: Chitapur Distt. Gulbarga (Mysore)	3·00 (Portland)
33.	J.K. Synthetics Ltd. Kamla Tower, Kanpur	Ludhiana (Punjab)	1·26 (Portland)
34.	The Ganges Mfg. Co. Ltd. Calcutta-1.	Village Kirtpur	4·00 (Portland)
	Total		95·37

*Public Sector Projects

Source: Ministry of Industrial Development.

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ANNEXURE VI

CEMENT INDUSTRY

Pending Applications

(*a*) *Large Industrial Houses*

		Location	Capacity (Lakh Tonnes)
1.	Orissa Cement Ltd. (SE)	Rajgangpur (Orissa)	5·99
2.	Century Cement (SE)	Tilda (M.P.)	6·00
3.	Kesoram Cement (N.U.)	Patna (Rajasthan)	7·35
4.	Birla Jute Mfg. Co. Ltd. (N.U.)	Patratu (Bihar)	3·50
5.	J.K. Synthetics Ltd. (SE)	Nimbahera (Rajasthan)	4·00
6.	Rohtas Industries (N.U.)	Patratu (Bihar)	3·50
7.	J.K. Jute Mills Ltd. (N.U.)	Kanpur (U.P.)	1·00
8.	Bagalkot Udyog Ltd. (N.U.)	Bagalkot (Mysore)	3·30
9.	Mysore Cements Ltd. (N.U.)	Narsingarh (M.P.)	4·00
10.	Bally Jute Co. (N.U.)	Sojat Road (Rajasthan)	4·00
		TOTAL	42·64

(*b*) *Others*

		Location	Capacity/Lakh/ tonnes	New/SE
1.	The Punjab National Bank Ltd., New Delhi	Durgapur (West Bengal)	2·60	NEW
2.	Meghalaya Government	Garo Hills (MEGHALAYA) Cooch Bihar (West Bengal)	5·67	NEW
3.	Shri A.K. Agarwal	Kotputli (Rajasthan)	1·00	NEW
4.	Rajasthan State. & Min. Dev. Corpn. Ltd.	Neem-ka-Thana (Rajasthan)	7·35	NEW
5.	Shri G. Anajaniah	Tadpatri Tq. (A.P.)	4·00	NEW
6.	Shri V.T. Magadi, Nagargali Cement Co.	Nagargali (Mysore)	4·00	NEW
7.	Shri D.N. Dahanukar	Rajura (Maharashtra)	3·30	NEW
8.	Shri V.P. Agarwal	Do.	6·60	NEW
		TOTAL	34·52	

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ANNEXURE VII

Information regarding organisation and management practices followed by interconnected companies having cement units

Mysore Cements	Kesoram Industries	Century Cement
The working of Research & Development Sections is two fold: (a) to supervise the manufacturing process through Quality Control Department; (b) to revise existing procedures to keep up with the development taking place in the industry. The R&D Section does not carry out research. For specialised guidance the company contacts Cement Research Institute of India and Indian Statistical Institute. Contribution to CRI is as under: Year — Amount 1969-70 · · Rs. 35,867·10 1970-71 · · Rs. 40,715·00 1971-72 · · Rs. 43,137·65 Payment made to Cement Service Bureau, Madras is given as under:— 1968-69 · · Rs. 7,425·45 1969-70 · · Rs. 26,952·82 1970-71 · · Rs. 10,548 ·07 Travelling expenses incurred in connection with R&D work came to Rs. 90,856·71 during the years 1967 to 1972.	1. *The amount of moeny spent on R of & relating to cement units and achievements thereon.* The Company does not have any central organisation of its own so far as research and development is concerned. However, research & development for cement is being done by the Cement Research Institute of India and every producer is required to pay at the rate of ten paise per tonnes towards research programme of the Institute. Specific problems of Chemical, Engineering or anyother nature are given to the Institute and it gives its advice suitable to Indian conditions.	Does not come in question as the plant has not yet gone into operation.
The company has a chemical laboratory and it tests quality at various stages of manufacture of cement i.e. from Mining Limestone to the end product. Some work is in progress to study the effects of cooling rate of clinker on Cement properties, and establishing clinker litre weight as a possible indicator of cement quality. Recently a start has been made regarding the introduction of statistical techniques like environmental control, not directly related to production is also being done. Extensive work involving installation of Electrostatic Precipitators, bag filters cooling tower has been initiated to eliminate dust omission into environments. Persons employed are:— Chemists · · · 5 Analysists · · · 5 Guagers & Sample boys 20	2. *Details of system of quality control, staff employed and expenditure incurred thereon.* The company has got a quality control department and they are making cement conforming to ISI (Indian Standard Institution) requirements. No separate record is maintained regarding expenditure incurred on quality control. The approximate expenditure, however, Year — Rs. in lacs 1967-68 · 1·28 1968-69 1·52 1969-70 · 2·69 1970-71 · 3·04 1971-72 · 4·04	Although, the plant has not yet gone into operation, yet the quality control deptt. would be fully equipped to carry out the process control and the quality control as per the requirements of ISI.

<table>
<tr><th>1</th><th>2</th><th>3</th></tr>
<tr><td>Expenditure incurred on quality control:—
<table>
<tr><th>Year</th><th></th><th>Stores Issued</th><th>Salaries and Wages paid</th></tr>
<tr><td></td><td></td><td></td><td>(Rs. in thousands)</td></tr>
<tr><td>1969-70</td><td>.</td><td>28·6</td><td>97·7</td></tr>
<tr><td>1970-71</td><td>.</td><td>31·9</td><td>108·6</td></tr>
<tr><td>1971-72</td><td>.</td><td>22·7</td><td>114·3</td></tr>
</table></td><td></td><td></td></tr>
<tr><td></td><td>3. <i>System of recruitment for Technical & Managerial Personnel.</i></td><td></td></tr>
<tr><td>The recruitment is made through advertisements and Conducting interviews and technical tests in the departmental concerned. It is usual to put the selected candidates on probation for six months.</td><td>The said category of staff is recruited after interviews of the persons knowing cement technology and having good experience.</td><td>They try to obtain applications by personnel investigations of suitable persons and also by advertisement for recruitment of technical and managerial personnel. The candidates are interviewed and selected. <i>So far only staff concerning construction and mining operations have been employed.</i></td></tr>
<tr><td></td><td>4. <i>Does the company have any regular training programmes for its personnel? If so, details thereof.</i></td><td></td></tr>
<tr><td>Company does not have a regular technical training scheme. The personnel, at present, was trained on the job, after having initial tests. The trainees were confirmed as operatives after about three years' training on the job.

Where trained operatives are not available, the training Schemes are introduced from time to time in certain trades. At present, the company has two trainees each in Shovel operating in the Quarry, and Millers and Burners in the Factory.</td><td>The company has 'on the job' training programme. They give training to qualified technical persons on specific jobs for a period of one year and then absorb them into service as and when the vacancy arises and put them on specific jobs for which they had been trained. About twenty persons have been trained during the last two years, on various jobs keeping in view the requirements of Rajasthan Project.</td><td>Does not apply as the plant has not gone into operation.</td></tr>
<tr><td></td><td>5. <i>Names and Designations & technical qualifications of the senior personnel who are looking after the plant(s)</i></td><td></td></tr>
<tr><td>1. Mr. N.R. Ramaprasad, Project Manager—B.Sc., M.M. DDIISC—18 years.</td><td>1. Sh. A.B. Vaidya, President D.E. (Electrical) & D.E. (Mechanical) 32 years.</td><td>(i) Mr. D.S. Bhandari, Tech. Manager, B.Sc. Chem. Eng., looks after the engineering details of the plant.</td></tr>
<tr><td>2. Mr. S.M. Shivashankar, Chief Engineer, B.E. in Mech. Engineering—17 years.</td><td>2. Shri K.C. Jain Vice President B.Com. FCA Charted Accountant—9 years.</td><td>(ii) Mr. Kailash Nath, Dy. Works Manager, B.Scs. Engg. (Mech. & Elec.) looking after the construction of the plant.</td></tr>
<tr><td>3. Mr. M.V. Radhakrishna, Project Engineer, B.E. Mech. Engineering—10 yrs.</td><td>3. Mr. G.C. Kothwal Production Manager M.Scs; —7 years</td><td>(iii) Mr. D.S. Rao, Mines Manager B.Sc. (Mining) 1st Class Mine Manager Certificate—Incharge of Mines Development and operations.</td></tr>
<tr><td>4. Mr. K.C.V. Shetty, Development Engineer, B.E. in Mech. Engineering—10 yrs.</td><td>4. Sh. C. Gopal Reddy Chief Elect. Engineer B.E. (Mech.)—7 yrs.</td><td>(iv) Mr. P.C. Shukla, Chief Chemist, M.Sc.-Incharge of Inspection of equipment and quality control of construction work.</td></tr>
<tr><td>5. Mr. S.B. Murthy, Chief Chemist, B.Sc. (Chem) 33 yrs.</td><td>5. Sh. S.R. Pansare Chief Mech Engineer B.E. (Elect.)—12 yrs.</td><td></td></tr>
</table>

1	2	3
6. Mr. G. Jagdesh, Quarry Manager, B.S.B.Sc. (Mines Engg) I Class Manager's Certificate—8 yrs.	6. Sh. S.P. Khullar Mining Manager, B.E. (Mining) 1st Class competency—12 yrs.	
7. Mr. Jeet S. Bhatia, R&D Engineer MS Chemical (USA)—1 yr.	7. Sh. O.P. Goyal Chief Accounts Officer B.Com. FCA—7 yrs.	
8. Mr. T.S.V. Rao Asst. Quarry Manager, B.Sc. (Honrs) Geology With II Class Manager's Certificate 10 yrs.	8. Sh. S. S. Patil, Chief Civil Engineer, Design/Structural Engineer, B.E. (Civil)—15 yrs.	
	6. *Services rendered by H.O./Regd. Office*	
Information not available.	Since each section is working independently of each other, no common or special services are provided to the cement section along with any other section of the Company.	Shri S.P. Mandalia, President, Shri J.N. Rahti B.Sc. Engg. (mech. & elc.) General Manager, (Overall incharge of the project) and Sh. B.L. Jain, B.Com. CA, Finance Manager, (in charge of finance and administration) are looking after the project from the Head Office. All other centralised technical, financial and commercial services inclusive of internal auditing which are available to other divisions are also available to Cement Division.

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ANNEXURE VIII

Information regarding organisation and management practices of M/s. Associated Cement Companies Ltd.

<table>
<tr><th></th><th></th><th>The Associated Cement Companies Ltd.</th></tr>
<tr><td>1.</td><td>Amount of money spent on research and development in the Company, particularly in the Cement division for the last three years.</td><td>The capital and revenue expenditure of the Central Research Station of the Company:—
<table>
<tr><th>Year (Aug./July)</th><th>Capital (in Rs. lacs)</th><th>Revenue (in Rs. lacs)</th></tr>
<tr><td>1969-70</td><td>3·45</td><td>12·47</td></tr>
<tr><td>1970-71</td><td>2·73</td><td>14·74</td></tr>
<tr><td>1971-72</td><td>7·39</td><td>18·00</td></tr>
<tr><td>1972-73 (upto 3/1973)</td><td>13·69 (approx)</td><td>13·49 (approx)</td></tr>
</table>
In view of the diversified nature of the work handled in the research station, it is not possible to spearate the expenditure on 'Cement Division'.
The Research Station (Estbl. 1965) has three Divisions:
(a) Manufacturing Research Division
(b) Concrete Division
(c) Physics and Chemistry Division
The main functions of the Research Station include:
(a) effecting improvements in current products and processes;
(b) developing of new products processes including import substitution items;
(c) maintaining a watching brief over co's products;
(d) investigating possible deversification of Co' products;
(e) cooperative testing to facilitate research work and standardisation of test methods.
Their research has helped them in solving specific problem e.g. high temperature refractory compound, synthetic zeolities (import substitutes items) shrinkage compensating cement and light weight aggregate from blcated clay.</td></tr>
<tr><td>2.</td><td>Specific facilities of research, training or development made available to the Company by Cement Research Institute</td><td>Cement Research Institute is likely to be equipped with more sophisticated equipment than Company's Research Station and as such facility would be used by A.C.C. along with others in solving their more broad based or even spcific research problems. C.R.I. will help industry through undertaking cooperative research.</td></tr>
<tr><td></td><td></td><td><i>Recruitment and training</i></td></tr>
<tr><td>3.</td><td>How does the Company get trained personnel and whether there is any regular programme of training?</td><td>(a) For technical and lower supervisory staff (artisans & foreman trainees) applications are invited by the Suptd. The artisan training covers various trades and period of training extends from 3 to 4 years (including one year's in plant-training). The training of Foremen (who are science graduates) extends upto 3 years.
(b) For high supersiory staff, the applications are invited by the H.O. for posts like Graduate Engineer Trainees, Chartered Accountants, Management trainees etc. The graduate Engineers remain on training for one year and on successful completion of training, they are posted as Junior Engineers.</td></tr>
</table>

	The Associated Cement Companies Ltd.
	The Management trainees are trained by a Training Manager for various lines i.e. for junior, middle and senior management posts; functional areas (Personnel, finances etc.); conceptual areas (MBO & MIS); and innovative and problem solving courses. (c) Training programmes are also organised for all levels of staff in the Hall at H.O. or residential courses held usually at NITIE or Matheran. (d) Company also supports external training programmes in both developmental and functional areas. (e) Senior Managers are even sent abroad to study the latest technological and managerial advances in the production of cement.
4. Details relating to system of **Qualty Control.**	(i) All cement plants are equipped with a full-fledged laboratory, having qualified personnel working round the clock to ensure regular system of quality control from quarry stage to the packing house. (ii) Quality control is exercised with a view to manufacture cement surpassing ISI specifications. (iii) At every works, there is a Chief Chemist assisted by Senior Chemist, Asstt. Chemists and other staff. (iv) Besides routine checks, the samples are tested every week at works and sent to National Test House, for tests as per D.G.S&D. rate contract. (v) Quality of cement is also counter-checked by sister works and ACC's Central Research Station. (vi) Productivity Division at the H.O. has a quality control section which hopes close watch on quality of cement produced and also offers technical service for improving quality and efficiency. *Staff employed (Monthly-paid) in quality control as works*:—Chief Chemists (18), Chemists (25) Asstt. Chemists (38)) Lab Asstts. (33), Tester/Guager (120) —234. Rs. 67.22 lacs were spent in all works during the last three years.

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ANNEXURE IX

Information regarding Organisation and Management practices of some other cement units.

The Jaipur Udyog Ltd.		Dalmia Cement (Bharat) Limited.	
		1. *Amount of money spent on research and development in the Company, particularly in the Cement division for the last three years.*	
The Company has a quality control laboratory. Recently a Research and Development Cell has been set up, to conduct and giude the Research work. The Cell has been carrying on research on specific subjects, such as fuel efficiency, substiteute for gypsum, utilisation aof paper Mill waste liquor, production of special cement utilisation of cinder etc. beneficiation trials etc.		The Company has a well-equipped aboratory not only for conducting routine analysis and tests at every stage of the cement manufacture in order to maintain the quality control, but also for carrying on research. The research and development is carried on in the laboratory where the quality control is maintained. "Manufacturing Chemist & Assistant Engineer (Chemical) etc. will attend to the Research & Development work in addition to their responsibilities for manufacture of cement." Expenditure on Laboratory, Manufacturig Chemist & Assistant Engineering (Chemical) is as under:—	
The Compny also contributed to the Cement Research Institute as under:—			
Year	*Amount(Rs.)*	*Year*	*Amount (Rs.)*
1969-70	85,114	1970	2,11,313
1970-71	79,951	1971	2,28,785
1971-72 (15 months)	87,658	1972	3,02,199
		As research is carried out in the laboratory alongwith the work of routine analysis and quality control, the expenditure on research & development alone cannot be separated.	
		The Company also contributed to the Cement Research Institute of India as under:—	
		Year	*Rs.*
		1970	50,228
		1971	50,351
		1972	50,515
2. *Specific facilities of research, training or development made available to the Company by Cement Research Institute?*			
All cement producers contribute @ 10 paise per tonne of cement despatched to CRI. The contribution issued for establishment and running fo the Research laboratories of the Institute and on research and development programmes of the CRI. Various facilties of chemical analysis and physical testing are available at the Ballahgarh (Haryana) Laboratory of the CRI.		CRI carries out elaborate reseatch (both academic as wells applied) on various problems faced by the Cement Industry. The Institute also carried out research to evolve new Hydraulic Cement. It also undertakes training of Technical supervisory staff from various cement factories in handling of rare sophisticated testing instruments.	
3. *How does the Company get trained personnel and whether there is any regular programme or training?*			
Normally the Company does not recruit skilled labour. Semi-skilled labour is helped to attain proficiency in respective trade and are promoted whenever a vacacny arises, in that trade. Similarly supervisory posts are filled by promotion from among capable skilled personnel or engineering diploma holders are recruited from outside generally after advertising the vacancies.		The existing employees are promoted to skilled jobs. Sometimes existing employees are selected for one year's training and after successful completion, he is promoted to the higher post. If no suitable employee is available, the recruitment is made either through advertisement or through employment exchange.	
The Company recruits graduates and post graduates and those with professional qualifications and these persons are given training in different departments/areas of management and then the are posted to staff the middle management levels. Engineering graduates are also similarly trained in different production departments and then posted to occupy middle level position.		Training in the subjects connected with respective subjects is given to the employees by deputing them to attend nominars. Conference and study courses conducted by professional bodies e.g. National Productivity Council, NITIE, Institute of Engineers etc. etc. Workers and Staff are trained through regular courses of instruction conducted by the Company. They are also imported training under workers' Education Scheme.	

1	2
4. *Details relating to system of quality Control.*	
The Company follows rigid quality control at various stages of production, Hourly/two hourly samples are taken at different stages of production and tested to conform to the specified norms.	They carry out physical/chemical tests of all raw materials and also at different stages of manufcturing process. Representative Samples of Cement are also sent to the Govt. Test House.
Samples are also sent periodically to National Test House.	Forty employees are working in the Labouratory Expenditure incurred on quality control is as under:—
The Company's expenses on quality control laboratory for the last three years are as under:— 1969-70 . . . . . . Rs. 3,04 lacs 1970-71 . . . . . . Rs. 3,22 „ 1971-72 (15 months) . . . . . . Rs. 4,37 „	year 1970 . . . . Rs. 1.80 lacs 1971 . . . . Rs. 1.99 „ 1972 . . . . Rs. 2.60 „
Persons employed are: Chief Chemical Engineers . . . 1 Lab. Incharge/Chemists, Testers, Guagers . 1 Laboratory boys etc. 45 47	

ANNEXURE X

M/S. BIRLA JUTE MANUFACTURING CO. LTD.

Names and qualifications etc. of Middle and Junior level Management personnel taken fresh from Instittues/Colleges during the years 1970, 1971 *and* 1972

1970

1.	Shri A.K. Joshi, Management Accountant	Cost Accountant
2.	Shri R.B. Mehter, Mech. Engineer	B.E. (Mech.)
3.	Shri S.P. Joshi, Elect. Engineer	Diploma Elect. Engg.
4.	Shri S.P. Singhal, Foundry Engg.	B.E. (Metallurgy)

1971

1.	Shri J.L. Jajoo, Sale Accountant	C.A.
2.	Shri A.K. Das, Asst. Labour Officer	MA, DSW
3.	Shri A. Chakraverty, Mech. Engg.	Diploma in Mech. Engg.
4.	Shri D.Sarkar, Mech. Engg.	Dip. in Mech. Engineer
5.	Shri R.K. Gupta, Civil Engineering	Diploma in Civil Engg.
6.	Shri V.K. Sharma, Elec. Engineering	B.E. (Elec.)
7.	Shri Shivaji, Bose Metallurgy	Diploma in Metallurgy Engineering

1972

1.	Shri S.K. Jain, Asstt. Chemical Engineer (div)	B.E. (Chemical)
2.	Shri L.R. Daga, Accountant	C.A.
3.	Shri H.C. Mathur, Law Officer	B.Sc. LLB.
4.	Shri R. Natarajan, Mech. Engg. (Dev.)	B.E. (Mech.)
5.	Shri P. Sengupta, Elect. Engg.	Diploma in Elec. Engg.
6.	Shri K.L. Sawarankar, Mech. Engg.	B.E. (Mech.)
7.	Shri A.K. Sardar, Metallurgy	B.E. (Metallurgy)
8.	Shri V.B. Nema, Mettallurgy	Diploma in Metallurgy Engg.
9.	Shri Khaitan, Management-Accounting	C.A.

ANNEXURE XI

THE BIRLA JUTE MFG. CO. LTD

Cash Flow Statement (Old)

(Rs. in lacs)

Sources of Funds	1972-73	1973-74	1974-75	1975-76	Total
1. Profit for the year	530·84	555·00	665·00	690·00	2,440·84
2. Debentures 8% 1981/83	100·00	..	..	..	100·00
3. Term Loan for Durgapur Cement Works	..	150·00	..	..	150·00
4. Deferred payment/Term Loan for Patratu Project	..	..	150·00	..	150·00
5. Working Capital Loan—Durgapur Cement Works	..	..	60·00	..	60·00
6. Working Capital Loan—Patratu Project	..	..	..	50·00	50·00
7. Tax Refund	..	30·00	..	..	30·00
8. Investment Sold	9·47	0·05	..	..	9·52
9. Decrease in stocks etc.	96·41	..	..	..	96·41
TOTAL	736·72	735·05	875·00	740·00	3,086·77

Sources of Funds	1972-73	1973-74	1974-75	1975-76	Total
Utilisations:					
1. Dividend	56·28	56·28	56·28	56·28	225·12
2. Repayment of term Loan—Durgapur Cement Works	..	—	37·50	37·50	75·00
3. Deferred payments for units other the Patratu	5·88	9·35	9·35	8·19	32·77
4. Tax Liability	155·00	100·00	200·00	200·00	655·00
5. Fixed Assets —Patratu Project	..	50·00	200·00	350·00	600·00
—Durgapur Cement Works	155·00	302·80	..	..	457·80
—Other units	153·73	30·00	30·00	30·00	243·73
6. Working Capital —Patratu Project	..	..	..	75·00	75·00
—Durgapur Cement Works	..	—	100·00	..	100·00
7. Investments —Bihar Alloy Steels	50·00	..	—	..	50·00
—Others	·06	..	...	..	·06
8. Loans to Bihar Alloy Steels	50·00	200·00	200·00	..	450·00
9. Increase in stocks etc.	..	64·25	..	..	64·25
TOTAL	625·95	812·68	833·13	756·97	3028·73
Surplus/Deficit for the year	110·77	(—) 77·63	41·87	(—) 16·97	58·04
Add: Opening Surplus	89·13	199·90	122·27	164·14	89·13
	199·90	122·27	164·14	147·17	147·17

TIME SCHEDULE

(i)	Completion of legal formalities etc.	December 1973.
(ii)	Commissioning of Patratu Project and trial runs	February, 1976

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Sd/-
for Pro. BIRLA JUTE MFG. CO. LTD.

ANNEXURE XII

BIRLA JUTE MANUFACTURING CO. LTD.

Statement showing Cost of Sales & Profit.

	1972·1973	1973-1974	1974-75	1975-1976
Sales (Net of Excise Duty)	3,619·29	3,422·00	4,124·50	4,339·50
Cost of Sales	3,269·45	3,109·00	3,676·00	3,934·00
Gross Profit (after Depreciation/but before Dev. rebate & Tax)	349·84	313·00	448·00	495·00
Less:				
Dev. rebate	24·50	95·00	..	..
Tax. Prof.	155·00	100·00	200·00	200·00
Net Profit (after Tax)	170·34	118·00	228·00	205·00
Less Dividends	56·28	56·28	56·28	56·28
Retained Profits	114·26	61·72	71·72	148·72

ANNEXURE XIII

BIRLA JUTE MANUFACTURING CO. LTD.

Statement of showing Financial Position

	1972-73	1973-74	1974-75	1975-76
1. Fixed Assets (Net)	1,365·14	1,455·94	1,268·94	1,613·94
2. Current Assets	1,532·31	1,494·15	1,936·02	1,994·05
3. Less current Liabilities	838·84	644·06	744·06	744·06
4. Working Capital	693·47	850·09	1,119·96	1,249·99
5. Total Capital Employed	2,058·61	2,306·03	2,460·90	2,893·93
Total capital employed represented by				
6. Share Capital	498·59	498·59	498·59	498·59
7. Reserves	1,092·18	1,248·90	1,440·62	1,589·34
8. Net Worth (6+7)	1590·77	1,747·49	1,939·21	2,087·93
9. *Presumed Funds*				
Secured	616·59	757·64	920·69	925·00
Unsecured	97·23	97·23	97·23	97·23
10. Total	2,304·89	2,602·26	2,957·13	3,110·16
Less Investment	246·28	246·23	246·23	246·23
Works in Progress	..	50·00	250·00	..
11. Capital Employed 1701-43	2,058·61	2,306·03	2,460·90	2,863·93
12. Average Capital Employed	1,880·02	2,182·32	2,383·45	2,662·41

ANNEXURE XIV

BIRLA JUTE MANUFACTURING COMPANY LIMITED

Finance Ratios

	1972-73	1973-74	1974-75	1975-76
1. Gross Profit (after depreciations but before Deve. rebate & Taxes) to:—				
(i) Cost of Sales	10·7	10·0	12·1	10·2
(ii) Sales	9·6	9·1	10·8	9·3
(iii) Net worth	22·0	17·9	23·2	19·3
(iv) Capital Employed	18·6	14·3	18·7	18·7
2. Profit (after Tax Project Dev. rebate) to:				
(i) Net worth	10·7	6·7	11·7	9·8
(ii) Average Capital Employed	9·1	5·4	9·5	9·4
3. Debt. Equity Ratio	1:1:4	1:1:7	1:2	1:2

ANNEXURE XV

BIRLA JUTE MANUFACTURING COMPANY

Sale (not of excise) (Rupees in lakhs)

	1968-69	1969-70	1970-71	1971-72
1. Jute Mills	826·06	689·48	885·89	1,110·86
2. Calcium Carbide	131·56	187·70	225·02	250·61
3. Staple Fibre	446·42	447·22	506·08	611·57
4. Satna Cement	577·41	759·46	766·66	733·06
5. Birla Cement	246·72	317·14	298·90	356·62
	2,228·17	2,401·00	2,682·56	2,962·72

ANNEXURE XV

Gross Profit (before development Rebate & Taxation)	Before Depreciation	After Depreciation	Before Depreciation	After Depreciation	Before Depreciation	After Depreciation	Before Depreciation	After Depreciation
1. Jute Mills	35·49	12·59	(—) 2·40	(—)27·72	73·83	48·40	77·44	46·85
2. Calcium Carbide	23·42	18·11	35·06	28·47	48·35	42·71	58·32	53·19
3. Staple Fibre	26·36	10·32	50·55	36·90	55·67	45·08	20·52	11·35
4. Satna Cement	137·44	89·89	226·18	179·72	194·66	153·55	167·04	112·47
5. Birla Cement	86·90	31·90	141·62	88·97	84·00	37·69	111·52	22·41
Total Gross Profits	309·61	162·81	451·01	306·34	456·51	327·43	434·84	246·27
Gross Profit ratio to sales:								
1. Jute Mills	4·29%	11·52%	..	..	8·33%	5·46%	6·97%	4·21%
2. Calcium Carbide	17·80%	13·76%	18·68%	15·17%	21·49%	18·98%	23·27%	21·22%
3. Staple Fibre	5·90%	2·31%	11·30%	8·25%	11·00%	8·90%	4·01%	2·21%
4. Satna Cement	23·80%	15·57%	29·78%	23·66%	25·39%	20·02%	22·78%	15·34%
5. Birla Cement	35·22%	12·93%	44·65%	28·05%	28·10%	12·60%	31·27%	6·28%

Fixed assets				
1. Jute Mills	235·95	229·82	241·07	262·58
2. Calcium Carbide	42·49	37·20	32·97	30·70
3. Staple Fibre	62·48	52·99	45·97	41·57
4. Satna Cement	336·07	312·47	318·94	344·97
5. Brila Cement	333·03	350·26	478·98	460·39
TOTAL	1,010·02	982·74	1,117·93	1,140·21

ANNEXURE XVI

THE BIRLA JUTE MANUFACTURING CO. LTD. (Rupees in lacs)

Sales (Net of Excise)	1972-73	1973-74	1974-75	1975-76
1. Jute Mills	1,146·82	1,115·00	1,120·00	1,120·00
2. Calcium Carbide	250·54	265·00	275·00	280·00
3. Staple Fibre	651·18	630·00	640·00	650·00
4. Satna Cement	1,042·00	864·00	963·00	978·00
5. Birla Cement	528·75	518·00	623·00	630·00
6. Durgapur Cement	..	30·00	503·50	681·50
	3,619·29	3,422·00	4,124·50	4,339·50

Gross Profit (before Development Rebate & Taxation)	Before Dep.	After Dept.	Before Dept.	After Dept.	Before Dept.	After Dept.	Before Dept.	After Dept.
1. Jute Mills	50·87	18·87	70·00	42·00	70·00	43·50	70·00	46·00
2. Calcium Carbide	54·59	50·13	70·13	66·00	70·00	66·00	70·00	66·00
3. Staple Fibre	99·21	91·71	100·00	93·00	100·00	93·00	100·00	93·00
4. Satna Cement	198·12	135·58	175·00	116·00	200·00	145·50	200·00	149·00
5. Birla Cement	128·05	58·55	140·00	76·00	175·00	115·00	175·00	121·00
6. Durgapur Cement	..	..	..	(—)80·00	50·00	(—)15·00	75·00	20·00
	530·84	354·84	555·00	313·00	665·00	448·00	690·00	495·00
Gross Profit Ratio to sales								
1. Jute Mills	4·4%	1·6%	6·3%	3·8%	6·2%	3·8%	6·2%	4·0%
2. Calcium Carbide	21·8%	20·0%	26·4%	24·9%	25·5%	24·0%	25·0%	23·6%
3. Staple Fibre	15·2%	14·1%	15·9%	14·8%	15·6%	14.5%	15·4%	14·3%
4. Satna Cement	19·0%	13·0%	20·2%	13·4%	20·3%	15·1%	20·4%	15·2%
5. Birla Cement	24·2%	1·01%	27·0%	14·6%	28·1%	18·4%	27·8%	19·2%
6. Durgapur Cement	..	..	..	..	9·9%	..	11·0%	2·9%

Sd/-
For Pro. BIRLA JUTE MFG. CO. LTD.

ANNEXURE XVII

THE BIRLA JUTE MANUFACTURING CO. LTD

Cash Flow Statement (Revised) (Rupees in lacs)

			1972-73	1973-74	1974-75	1975-76	Total
Sources of Funds							
1.	Profit for the year		506·69	555·00	665·00	690·00	2,416·69
2.	Debenture—8% 1981/83		100·00	..	..	..	100·00
3.	Short term loan for Durgapur Cement Works		...	150·00	..	..	150·00
4.	Deferred payment/short term Loan Patratu Project		..	..	150·00	..	150·00
5.	Working Capital Loan—Durgapur Cement Works (C/Credit A/c)		..	..	60·00	..	60·00
6.	Working Capital Loan Patratu Project (Cash Credit) A/c		..	..	..	50·00	50·00
7.	Tax Refund		..	30·00	..	..	30·00
8.	Investment Sold		9·47	·05	..	..	9·52
9.	Decrease in Stocks etc.		96·41	..	..	..	96·41
10.	Interest free Loan under West Bengal Incentive Scheme Durgapur Cement Works		..	32·00	..	..	32·00
11.	Additional Accruals due to—						
	(a) Reductions in export duty on Jute Goods		..	10·00	20·00	20·00	50·00
	(b) Increase in the retention price of Cement @Rs. 5 per tonne (while assessing the profit of Cement Division we had assumed an increase of Rs. 5 per tonne)		..	25·73	70·50	76·75	172·98
	(e) Reduction in tax liability under the D/T (Amendment) Bill 1973 on account of—						
	(i) initial depreciation		..	..	3·75	72·23	75·98
	(ii) Tax exemption on 20% of Profit for industry (Durgapur Project) being in backward area.		..	..	..	2·31	2·31
	TOTAL		712·57	802·78	969·05	911·29	3,395·69
Utilisation of Funds							
1.	Dividends		57·78	64·79	64·79	64·79	252·15
2.	Repayment of Short Term Loan—Durgapur Cement Works		..	..	50·00	50·00	100·00
3.	Deferred Payments for units other than Patratu		1·26	9·35	9·35	9·35	29·31
4.	Tax Liability		155·00	100·00	200·00	200·00	655·00
5.	Fixed Assets	Durgapur Cement Works	107·28	350·52	..	..	457·00
		Other units	167·71	30·00	30·00	300·00	257·71
		Patratu Project	..	50·00	200·00	350·00	600·00
6.	Working capital	Durgapur Cement Works	..	..	100·00	..	100·00
		Patratu Project	..	..	..	75·00	75·00
7.	Investment	Bihar Alloy Steels Ltd.	50·00	..	..	..	50·00
		Others	·06	..	..	..	.06
8.	Loan to Bihar Alloy Steels Ltd.		50·00	200·00	200·00	..	450.00
9.	Increase in stocks etc.		..	64·25	..	..	64.25
10.	Additional tax liability on increase in profit as per Item 11(a) & 11 (b) above		..	20·63	53·55	55·86	129·74
		Total	589·09	889·54	907·39	835·00	3,221·02
	Surplus/Deficit for the year		123·48(—)	86·76	61·66	76·29	174·67
	Add : Opening Surplus		89·13	212·61	125·85	187·51	89·13
	Closing Surplus		212·61	125·85	187·51	263·80	263·80

Time Schedule

1. Completion of legal & Governmental formalities for Patratu Project expected —December, 1973
2. Commissioning of Patratu Project and trial runs provided all the legal and governmental formalities are completed by December, 1973. —February, 1976

For BIRLA JUTE MFG CO. LTD

Sd/-

No. 2/6/72-M(I)

GOVERNMENT OF INDIA

MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS DEPARTMENT OF COMPANY AFFAIRS

BEFORE THE CENTRAL GOVERNMENT

In the matter of application dated the 19th September, 1972 under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for the establishment of a new undertaking for the manufacture of a Cement Clinker at Patratu in Hazaribagh District, Bihar.

M/s. Birla Jute Manufacturing Company Limited (hereinafter referred to as the 'applicant company'). submitted an application under section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 for the establishment of a Cement Clinker plant at Patratu in Hazaribagh District, Bihar. The annual capacity proposed to be installed is 3·50 lacs tonnes based on three shifts of continuous working for 330 days in a year. The cost of the project originally estimated by the company at Rs. 525·00 lacs has subsequently been revised to Rs. 600·00 lacs i.e. (Land & Development Rs. 20 lakhs, Building Rs. 105 lakhs and Plant & Machinery Rs. 475 lakhs) which is proposed to be met from the internal resources of the applicant company.

2. The Central Government were of the opinion that no orders on the proposal could be made without further enquiry and, the proposal was therefore, referred to the MRTP Commission (hereinafter referred to as the Commission) for further enquiry and report. In its Report to the Central Government, dated the 1st October, 1973, the Commission recommended the approval of the proposal of the Company *subject* to the following conditions:—

(1) Within one year from the date of approval, the company should issue fresh capital to the extent of Rs. 150 lacs (15 lacs ordinary shares of Rs. 10 each) and these shares should be offered in priority to public financial institutions designated by the Central Government on terms as to premium and otherwise mutually agreed upon between the institutions and the company; in case no such agreement is arrived at, the terms will be decided by the Controller of Capital Issues whose decision will be accepted by the Company.

(2) Only such of the additional issue of equity as would not be subscribed to by the designated financial institution would be thrown open for public subscription.

(3) None of the inter-connected companies their directors (including those of the applicant company) and relatives of the directors will subscribe to the new issue.

(4) Alternatively, the Scheme of Finance may be so modified as to provide for long term loans to the extent of Rs. 300 lacs being obtained from public financial institutions designated by the Central Government. These loans would be subject to the appropriate convertibility clause.

(5) In either case, the Articles of Association of the company should be amended so as to provide for proportional representation on the Board of Directors.

3. At the statutory hearing given under Section 29 of the MRTP Act, the representatives of the applicant company stated that the conditions recommended by the Commission will not be acceptable to the applicant company, and they urged that their proposal should be treated on par with the proposals of several other companies belonging to large houses, recently cleared by the Central Government without any conditions being attached to them. The applicant company further stated that if the project is not completed within three years time (after all the formalities with the Central Government and the State Government have been completed), the applicant company would be agreeable to submit a revised scheme for finance for the approval of the Central Government and at that stage, the conditions recommended by the Commission could be imposed on the applicant company.

4. After taking into consideration all facts and circumstances of the proposal and particularly—

(i) that the Commission itself has recommended the approval of the proposal of the applicant company on the ground that additional capacity is necessary to ensure the proper functioning of the Durgapur Cement Plant of the applicant company, and this in turn is important to satisfy the growing demand for cement in the national economy;

(ii) that the item of manufacture is included in the list of industries in which large industrial houses are eligible to participate;

(iii) that the scheme is proposed to be financed entirely from internal resources of the applicant company;

(iv) that the proposal is expected to generate employment to several persons;

(v) that the proposal does not envisage foreign collaboration or imported capital goods;

(vi) that the raw materials will be completely indigenous;

(vii) that the proposal is to set up a new Cement Cliner plant in a backward area entirely at Patratu in Bihar;

and the assurance given by the applicant company and referred to in a para 3 above the Central Government is of the opinion that the proposal of the applicant company is in the interests of the national economy of the country and may be approved, *subject* to the two conditions stipulated in the order appended below:—

ORDER

In exercise of the powers conferred by clause (a) of sub-section (3) of Section 22 read with Section 54 of the MRTP Act, the Central Government hereby approve the proposal of the Birla Jute Manufacturing Company Limited, Birlapur, 24-Parganas, West Bengal, for the establishment of a Cement Clinker with a capacity of 3·50 lac tonnes at Patratu, Hazaribagh District in Bihar State, on the basis of the scheme of finance as contained in the application of the applicant company, dated the 19th September, 1972, and as subsequently modified before the Commission, *subject* to the strict conditions that the applicant company would implement the project within a period of three years entirely with its own generated resources without recourse to any borrowing and the plant for the professionalisation of management of the applicant company is drawn-up and implemented to the satisfaction of the Government.

सत्यमेव जयते

(Sd.)

(C. R. D. MENON)

Deputy Secretary to the Govt. of India

NEW DELHI,
the 3rd May 1974.

REPORT UNDER SECTION 22 (3) (b) OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969, IN THE CASE OF CHOWGULE AND COMPANY PRIVATE LIMITED, GOA.

सत्यमेव जयते

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23—10 M of LJ & CA/ND/79

सत्यमेव जयते

MONOPOLIES AND RESTRICTIVE TRADE PRACTICES COMMISSION

Report Under Section 22(3)(b) of the Monopolies and Restrictive Trade Practices Act, 1969 in the Case of Messrs Chowgule & Company Private Limited, Goa, for the Establishment of Solar Salt Works at Jodiya in the State of Gujarat

INTRODUCTION

0.01 M/s. Chowgule and Company Private Limited made an application to the Central Government on 29th May, 1975. This was under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, seeking the Government's approval for a project to establish a Solar Salt Works for the manufacture of Common Salt at a site near Jodiya (District Jamnagar) in the State of Gujarat. The Central Government, after considering the application, formed the opinion that no order according approval could be made without a further enquiry by the Monopolies and Restrictive Trade Practices Commission. Therefore, the Central Government, in exercise of its powers under Section 22(3)(b) of the M.R.T.P. Act, referred the application to the Commission on 29th October, 1975, for enquiry and report. Under Section 30(2) of the M.R.T.P. Act, the Commission had to make its Report within 90 days from the date on which the reference was received, *i.e.* on 28th January, 1976. The Commission, however, found that due to various reasons, including the extension sought by the applicant company for submitting certain information required by the Commission, the Report could not be submitted within that time. Therefore, the Commission, by its Order dated 23rd January, 1976, extended that date of submission of its Report to 15th March, 1976.

0.02 In accordance with Regulation 36(1) of the Monopolies and Restrictive Trade Practices Commission Regulations (1974), a public notification* was issued in various newspapers and periodicals on 7th November, 1975, inviting comments regarding the proposal. In response to the Notification, comments were received from two persons; one, from Shri D.P. Jadeja, Member of Parliament and another from Shri G.R. Purohit, Ahmedabad. The Commission also addressed letters to various government authorities, including the Ministry of Industrial Development, the Planning Commission, the Salt Commissioner, the Ministry of Petroleum and Chemicals, the Ministry of Shipping and Transport and also the State Government of Gujarat, inviting their comments on the proposal and asking for specific information in relation to different aspects of the proposal. The Commission similarly addressed other public authorities, such as, the State Trading Corporation, the Hindustan Salt Works, The Central Salt and Marine Chemical Research Institute and the Trade Development Authority, inviting their comments and calling for specific information. As Common Salt is used as an input by many chemical industries, a number of units in such industries were addressed with a view to securing their comments as well as factual information on certain aspects. Information from the applicant company and these various agencies were received in December, 1975 though some replies were received as late as February, 1976.

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*See Appendix "C".

0.03 With a view to understanding the problems of organising and functioning of salt works, the Commission visited the Saurashtra areas, and specially the large salt works of the Tata Chemicals Limited at Mithapur. It also had a discussion with some of the local Salt manufacturers at Jamnagar. The Commission also visited some of the projects in Goa under the management of the applicant Company with a view to ascertaining the organisation and management structure as well as the research and development work carried out by the applicant Company.

0.04 A public hearing regarding the application was held at the Commission's Office on Monday, the 16th February, 1976*. In addition to the representatives of the applicant Company, the representatives of the following government and semi-government organisations were present at the Public Hearing :-

1. Ministry of Shipping and Transport.
2. Ministry of Chemicals & Fertilisers.
3. Planning Commission.
4. Industries Commissioner, Government of Gujarat.
5. Salt Commissioner.
6. State Trading Corporation.

The two persons who had objected to the proposal in writing were not present at the public hearing though their objections had been conveyed to the applicant Company and the points raised in these objections were considered. A representative of the Indian Salt Manufacturers Association, Bombay, was also present at the Public Hearing. A request was made by him that he should be permitted to participate in the Public Hearing. Though this Association had not complied with the provisions of Regulation 36(8) of the MRTPC Regulations (1974), as a special case, an opportunity was given to this representative of this Association to state their objections. The applicant company was permitted to file its reply, in addition to the oral statement made by it at the Public Hearing, a few days after the Public Hearing. The applicant Company was also permitted to file certain supplementary information arising out of the points that arose at the Public Hearing. This statement was received on 23rd February, 1976.

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*See Appendix 'D'.

CHAPTER I

THE PROPOSAL

The Applicant Company

1·01 The applicant company was formed on 3rd July, 1943, in the former Portuguese colony of Goa, Diu and Daman under the Portuguese Commercial Code. The company was a Sociodade for Quotas Responsibilidade Limitada (Limited Company) in the Territory of Goa, Daman and Diu. It claims to be first company to export iron ore to Japan beginning around 1950. In subsequent years regular shipments have been made to Japan, Czechoslovakia and other countries. The Company expanded its activities by establishing mechanised mines at Sirigao, which were commissioned in 1956. Thus, the applicant Company was established in the business of Iron Ore and Manganese Ore Mining and generation of electricity and operation of a mechanical Iron Ore handling Plant in Goa before 1960 when Goa was still under Portuguese rule. Other lines of business have been started subsequently; these include, iron ore pelletization (1965), manufacture of Textile Yarn (1969) and construction of small Vessels and Barges (1963). The Company was incorporated under the Indian Companies Act, 1956, on 24th June, 1965, with an authorised capital of Rs. 300·25 lakhs. The authorised share capital of the Company at present is Rs. 600 lakhs and the issued and subscribed capital is Rs. 300·25 lakhs. Taking the various activities of the Company together, the capital employed by the Company at the end of 1973-74 was Rs. 902·87 lakhs. No shares of the Company have been issued for consideration otherwise than cash and no reserves have been capitalised. The Company is a private Limited one and all its shares are held by members of the Chowgule family and their close relatives.

1·02 In addition to the new lines of business which have been added by the applicant Company in the last ten years or so, there has also been considerable growth of new lines of business organised through interconnected companies. The inter-connected companies and their main lines of business as well as the capital employed in them are shown in Table I (Annexed). Most of these companies are closely held companies, with a large part of their equity capital being held by members of the Chowgule family and their close relatives. In addition to the present project, which is being considered in this Report, a few other projects of the applicant Company are under the consideration of the Government. These include a project for setting up an undertaking for the manufacture of industrial explosives with an annual capacity of 20,000 tonnes and a capital cost of Rs. 150 lakhs; an Iron Ore Benefication plant with a capacityof 18,72,000 tonnes of iron ore concentrates for supply to its Pelletisation plant with a capital cost of Rs. 684 lakhs, and an Iron Ore Pelletisation plant in the Joint Sector with a capacity of 1·8 million tonnes and a capital cost of Rs. 43·64 crores. The last project mentioned has already received clearance under the M.R.T.P. Act, while the other two projects are still under the consideration of Government.

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Name of the Company	Year established	Lines of business	Capital as on	employed Rs. lakhs
1. Ghowgule Steamships Limited	1965	Shipping	31-3-74	558·51
2. Arlem Breweries Ltd.	1969	Beer	30-9-74	187·81
3. Goa Pesticides Pvt. Limited	1965-66	Pesticides	31-3-74	10·68
4. Cartybon Pvt. Ltd.	1965-66	Stationery articles	31-3-74	26·37
		Sea Food	30-6-74	79·04
5. Konkan Fisheries Pvt. Ltd.	1968	Sea Food	30-6-74	79·04
6. Goa Food Products Pvt. Ltd.	1965	Canned fruits & Marine foods	30-3-73	30·95
7. Chowgule Industries Pvt. Ltd.	1965-66	Trading	31-3-74	11·40
8. Gomantak Pvt. Ltd.	1967-68	Newspaper	31-3-74	11·22
9. Kolhapur Oxygen & Acetylene Pvt. Ltd.	1968-69	Industrial Gases	31-3-74	6·59
10. Janta Machine Tools Limited	1959	Machine tools	31-12-73	31·58
11. Chowgule Engineering Co. Pvt. Ltd.	1965	Industrial & Mining Machinery components.	31-4-74	19·98
12. Chowgule Real Estate & Construction Co. Pvt. Ltd.	1963	Construction & Real Estate	31-3-74	19·26

	Name of the Company	Year established	Lines of business	Capital as on	employed Rs. lakhs
13.	Chowgule Metal Industries Ltd.	1975	Iron Ore Pelletization Plant.	X	X
14.	Chowgule Chemical Pvt. Ltd.	1958	Vegitable non-essential oil Mesal-fan Gamkaraya.	30-6-74	1·89
15.	Chowgule & Co, (Hind) Pvt. Ltd.	1947	Resin Pharmaceuticals Tablets Liquid Ointment Injections Capsules Tetanus Texoid General Vaccin Serum ATS Vaccin Serum ADS	30-6-74	110·60
16.	Camera Works Pvt. Ltd.	1959	Camera Enlargers	31-12-73	7·14
17.	Chowgule Bros.	1916	X	31-3-74	36·91
18.	Allodies	1968	X	31-3-74	2·80

NOTE : (X Data not available)

1·03 The Company also has a proposal for installation of 300 Looms and 25,000 Spindles in their textile unit which is pending with the Ministry of Industrial Development for permission under the Industries (Development and Regulation) Act.

1·04 One of the claims made by the applicant company is that, not only has it been a pioneer in a number of industrial lines in a backward territory like Goa, but it has also shown initiative and enterprise by constantly undertaking research and development and improving technology without depending on foreign collaborations or import of technical know-how. It has maintained a comprehensively equipped testing laboratory and pilot plant for the beneficiation and agglomeration of ores and for the sampling, assaying and testing of different ores and ore pellets. Attached to the pilot plant, there is a complete unit with facilities for studying various properties of ores and pellets. With the use of these facilities, a number of studies and experiments have been carried out and these have been of great use for new projects such as the proposed joint sector project for pelletisation of iron ore. Work on a contract basis is also being assigned by outside agencies to this unit. Thus a pilot study was undertaken for the Department of Mines, Karnataka State, to evaluate the chemical and physical properties of chrome ore pellets. Tests were also carried out to study the pelletisation properties of Austialian (Hammersley) fines.

1·05 The Company has claimed that its pioneering and technical capabilities can be understood by taking into account the following achievements to its credits:—

(1) the first in India to introduce mechanised mining in its Sirigao Mines, Goa, in the year 1952;

(2) the first in India to set up a Mechanical Ore Handling plant at Mormugao Harbour in the year 1959 for loading of ocean going steamers;

(3) the first in India to develop the Sink Float method for the treatment of low grade Goan Iron Ores, using the Stripa technique, with iron ore fines as the medium;

(4) the first in the world to establish a pelletization plant in the year 1967 at its Pale Mines, Goa, for treatment of hematite limenite iron Ores;

(5) the first in India to construct self propelled barges of 1000 DWT capacity in its ship building division at Sirigao in Goa.

(6) The metalurgical laboratory set up at its Pale Mines, Goa, in the year 1970, for determination of pyrometallurgical properties of burnt pellets, following JIS standards, was the first of its kind in India. To-date this laboratory has the following important research work to its credit:—

(a) Extensive tests using different additives in various percentages were conducted to determine the metallurgical properties of the specially prepared pellets;

(b) Development of cold bond pellets:

(c) Determination of the pelletizing characteristics of chromite pellets;

(d) Preparation of manganese ore pellets: and

(e) Development of pre-reduced pellets, using solid and gaseous reductants.

The Present Proposal

1·11 The basic facts regarding the proposal of the applicant company are as follows:—

It is proposed to establish a facility to produce Common Salt by means of Solar evaporation. The applicant Company has approached the State Government of Gujarat for making available to it about 20,000 acres of land in Jodiya Taluka of Jamnagar District to locate the Salt Works. It has been stated that the land is located in a Saline track in the arid region lying along the coast of the Gulf of Kutch in Saurashtra. This site is considered suitable for a Salt Works due to the following reasons:—

- (i) Availability of adequate land, mostly plain and devoid of deep creeks;
- (ii) the land being in a single piece permitting eventual production capacity of one million tonnes; and
- (iii) the land being along the side of the Hansthal Creek channel leading to the port of Navlakhi which is navigable for bulk carriers. It has been further pointed out that Jodiya is served by a metre guage rail link falling on the Rajkot-Jamnagar metre guage section of the Indian Railways.

1·12 It has been stated that in the first phase of the Project which is covered by the present application, it is proposed only to develop about 5,000 acres out of the total land asked for from the Gujarat Government. The proposal is to organise salt production on a large scale and on scientific basis. Moreover, it is proposed to install a mechanical washery, so as to upgrade the salt further so as to attain a purity of 99·5% NaCl on dry basis. It is claimed by the applicant Company that salt of such purity is not being produced in India at present, and that the production of salt of such high quality is necessary for developing and expanding the export of salt from the country. The project is stated to be an export-oriented one in that the intention of the applicant Company is to export the bulk of the salt proposed to be produced; and the market which they have in mind is Japan. It has been stated that Japan, which was importing salt from India earlier in substantial quantity, discontinued such imports as a result of low quality of salt and poor loading facilities. The Present project claims to get over both these inadequacies so as to recapture the Japanese market for exports from India. The applicant Company has already given an undertaking to the State Government of Gujarat that the project will be made export-oriented, exports beginning from the third year of the beginning of production, and reaching 75% in the fifth year. The applicant company expects to be able to maintain exports at 75% of its production on a continuing basis.

1·13 The project will be located in a backward area where there is not much regular employment. It has been claimed that the project in its construction phase will employ about 1,000 persons daily. The construction work is likely to be spread over about three years. For the operation of the Works, it is expected that about 4000 persons will be required.

1·14 Regarding the transport of the salt to foreign markets., it has been proposed to consstruct an earthwork facility to carry the salt from the coast for a distance of about 400 meters towards the middle of the Hansthal Creek. With an all time draft of 35 feet existing in the channel of this creek at a distance of about 500 meters from the shore, bulk carriers of about 35,000 DWT capacity can be loaded with the use of dump barges carrying salt for the remaining distance of 100 metres; and the ships engaged on a long-term basis would have facilities for mechanical loading of salt from these barges. This will enable the attianment of a rate of loading of about five to eight thousand tonnes pert day and thus help get over the other difficulty that importers from Japan have faced in the past, viz. that a low rate of loading has led to high shipping charges.

1·15 The capital cost of the Project has been estimated at Rs. 64 lakhs (1974 prices.) This amount is expected to be made available from the internal resources of the Company over a period of four years. It has also been mentioned that short-term borrowing of about Rs. 20 lakhs will be resorted to for the purpose of working capital, the requirements of which have been put at Rs. 31 lakhs.

1·16 The company has stated that this phase of the project will take five years to complete. As a result of developing about 5,000 acres for salt cultivation, it is expected that 3,50,000 tonnes of Common Salt will be produced by the fifth year. Out of this, some 750 tonnes will be used for the manufacture of 600 tonnes of Table Salt. The remaining quantity will be marketed as Common Salt.

The Site

1·21 The site of the proposed Salt Works has been selected taking into account certain special advantages that the site can offer for production of salt by Solar rediation. The soil structure is of importance in a salt work. The applicant company has provided data about the soil pro files, showing that the soil has a major fraction of clay with the next larger but minor fraction being of fine sand. It has been pointed out that such a soil on compaction can attain a high density resulting in an almost impervious structure. This is of advantage as salt water at different stages of evaporation will not be lost from pans which are based on such soil.

1·22 Climatological factors, such as solar radiation, a temperature, humidity, rainfall and wind velocity also affect salt manufacturing operations. The higher the intensity of solar radiation, temperature and wind velocity, and the lower the values of humidity and rainfall, the better the evaporation and thus the concentration of sea water leading to the precipitation of common salt. The data about these values supplied by the applicant company suggest that this area would be good for salt production. This is also supported by the fact that the Saurashtra Coast is known all over the country as one of the best areas for the production of salt by solar evaporation.

1·23 Adequare availability of sea water of an initial density of 3·0° Bs′ is of importance. The area proposed for the works, it has been pointed out, is suitable for impounding sea water by gravity and it is expected that it would be possible to provide continuous pumping hours so as to obtain sea water in the pans. It has also been claimed that the sea water along the coast at the proposed site is free from suspended silt in any appreciable quantity and therefore does not pose any difficulty regarding oiltation.

The Salt Works

1·31 Removal of water from sea water, which contains on an average 3·5% of salt as dissolved material, is the cheapest method of salt production. The evaporation of the sea water is carried out in an open expanse of land with the said of solar radiation. The area of salt works is essentially divided into three parts, *viz.*, reserviour, condensor and crystalliser. The movement of the brine, *i.e.*, evaporated sea water from one part to another is arranged in such a manner as to provide for a long path of movement so as to achieve better evaporation. Evaporation is achieved with greater speed when the brine is in motion. During the its concentration by evaporation, sea water undergoes reduction in volume and increase in the concentration of various dissolved solids. Sea water of an initial density of 3·5° Be′ on an average has the following composition:—

			om/l
1.	Calcium Carbonate	$CaCC_3$	0·12
2.	Calcium Sulphate	$CaSO_4 2H_2O$	1·44
3.	Sodium Chloride	NaCL	29·11
4.	Magnesium Sulphate	$MgSO_4$	2·34
5.	Potassium Chloride	KCl	0·72
6.	Magnesium Chloride	$MgCl_2$	3·58
7.	Magnesium bromide	$MgBr_2$	0·05

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1·32 In order to ensure the recovery of salt of the maximum purity, it is necessary to organise salt pans in such a manner that different impurities are removed at different stages according to their solubility values. Due care has to be exercised in the collection of salt at different stages so as to reduce these impurities to the maximum possible extent. By controlling the rate of evaporation and the degree of agitation of the brine, the salt producer is also able to vary the sizes of the crystals produced. A large salt works, well planned from its initial stages, can set up a set of interconnected salt pans in such a manner as to obtain different grades of salt at different stages and remove impurities as best as possible so as to achieve improvement in the quality of salt.

1·33 The applicant Company has claimed that as, even in the first phase of the development of its proposed Salt Works, an area of about 5,000 acres will be taken up, it will be possible to organise the whole operation of evaporation in a scientific manner. The design will ensure adequate stocks of saturated brine at all times for feeding the crystallisers, which are proposed to be worked in series for obtaining better purity. It is also proposed to utilise the salt crop of the first season for preparation of the crystalliser bed. A further operation of a preparatory type will be undertaken in the following manufacturing season so as to provide a clean hard bed for further crystallisation. This will provide a basis for mechanical salt harvesting. Such harvesting will reduce the cost and ensure complete and efficient harvesting of the salt produced in the crystallisers. To ensure the convenient operation of mechanical salt harvestors, it is proposed to keep the area under individual crystallisers at around two hectares. It is claimed that this will not only facilitate manufacture and the harvesting of salt but also reduce the cost of construction and maintenance in addition to ensuring a more gainful use of the area available for the works.

1·34 It is claimed that a salt works organised carefully and scientifically in this manner would be capable of producting salt of about 97·5 to 98% NacL content on dry basis. It has been claimed by the applicant company that this would be of a much higher purity than what is being produced in most of the salt works operating in India at present.

Mechanical Washing

1·41 The salt thus produced is proposed to be upgraded in a mechanical washery. It has been indicated that the washery proposed to be installed will be utilising hydro-cyclones which will be fed tengentially with the salt and wash liquor mixture. The washed salt will be removed from the conical bottom chute with the washed liquor ejected from the top. The washed salt will be subjected to continuous centrifuging for effective removal of adhering mother liquor. The centrifuged salt will be further passed through a hot air rotary drier for achieving complete dryness. It is claimed that salt of the purity expected from the Salt Works and further washed in this manner will attain a purity of 99·5% NaCl on dry basis. It is claimed that when setting up the washery, the washing parameter will be studied at one of the national laboratories, utilising the expertise so far developed in the beneficiation of iron ores in the Company's own plant. The capacity of the washery will be around 200 tonnes per hour and will be sufficient to wash 3·50 lakh tonnes annually on the basis of one shift. When production increases in the second phase of the project, the unutilised capacity of the washery can be brought into use.

Loading of Salt

1·51 One of the major handicaps in the export of salt from India is said to be the very low rate of loading in ships which exists at most ports from where salt is exported at present. The applicant company proposes to provide facilities so as to ensure a higher rate of loading. It has been claimed that a study of the admirality chart relating to the concerned area indicates that, running along the coast of Hansthal creek close to the North West corner of the proposed site, a draft of 6 fathoms and 3 feet exists in the permanent waters abut 500 metres from the shore. An all time draft of 35 feet exists beyond a distance of 500 metres along this line. It is proposed in the first phase of the project that bulk carriers with a capacity of 30,000 to 35,000 DWT can be loaded at this point which is located in the protected part of the approach channel to the Navlhkhi port. It has been mentioned that this port works practically throughout the year, being protected against the South West Monsoon by the mainland. The North East winds are not so pronounced.

1·52 Of the distance of 500 metres between the shore and the point at which the bulk carriers can halt, 200 metres fall under a 'drying' water belt and 200 metres in a belt of only two feet permanent water. The applicant company proposes to provide a kind of rubble embankment over this distance of 400 metres, which would provide a passage for trucks to transport salt from the storage area of the Salt Works. The cost of this work has been estimated by the applicant company at about Rs. 50,000/60,000. The remaining distance of 100 metres is proposed to be covered by three or four dump barges of a capacity of 500/700 tonnes each. The idea, as explained at the Public Hearing by the representative of the applicant company, is that the bulk carriers will provide facilities of mechanical loading from the dump barges in such a manner as to provide for a loading rate of 5000 8000 tonnes per day. It is claimed that this would ensure adequately efficient loading and would make exports to distant market like Japan competitive.

Capital Cost of the Project

1·61 The present stage of developing about 5000 acres of land for salt cultivation and the related setting up of the mechanical washery are expected to require a capital investment at Rs.64,00,000. The break-up of this expenditure has been indicated by the applicant company as follows:—*

S. No.	*Description*	*Rs. in lakhs*
1.	Earthwork involved in construction of embankment, crystallisers, roads, staking ground, sluice gates, etc.	20·00
2.	Building for office, stores, workshop, garages etc.	3·0
3.	Pumping units and accessories	4·0
4.	Belt Conveyors	2·0
5.	Tractors, trailors/vehicles, etc.	3·0
6.	Water Supply line	2·0
7.	Electricity installations	3·5
8.	Salt Washery Unit	16·0
9.	Salt Harvesting equipment	6·0
10.	Equipment for table salt manufacturing Plant	4·5
	TOTAL	64·00

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*The applicant Company has provided further details. These are to be found in Appendix A6 to this report.

1·62 It has been stated that most of the equipments required will be indigenously available. Capital equipment worth Rs. 6 lakhs may however have to be imported. This is because mechnical salt harvestors have not yet been successfully fabricated in India. The Company has pointed out that an experimental harvester of small capacity, fabricated by the Central Salt and Marine Chemical Institute, has not turned out successful and the Institute appears to have asked for Government permission to import one unit for trial. The Company has pointed out that any such import for the project will be only on the basis of clearance by Government, in case by the time it is required, indigenous production has not been established.

The Phasing of the Project

1·71 The applicant Company is proposing to develop the initial 5,000 acres of the total area of about 20,000 which it is obtaining on lease as the first phase of its Salt Works project. Subject to clearance by Government, the Company expects to take up construction work immediately after the Monsoon of 1976. As explained earlier, in the initial year, salt will not be harvested, but the crop will be used for the purpose of improving the crystalliser beds. Thus, the first crop of Salt for marketing purposes will be available in 1979-80. Areawise production will be progressively increased and production is expected to be as follows in the initial period of the project :

1979-80	1,75,000 tonnes
1980-81	2,10,000 tonnes
1981-82	3,50,000 tonnes

Thus, the first phase of the works may be expected to be completed by 1981-82.

1·72 The applicant Company apparently has kept the second phase of development undefined and somewhat vague at this stage. It has only been stated that the development of the remaining area will be completed in a total period of eight or nine years from the commencement of the scheme. At the Public Hearing, it was indicated that the further development will be undertaken according to the success achieved by the Company in ensuring exports of the magnitude that it is undertaking to effect, provided the project progresses as per expectations and long-term demand for salt in foreign markets at remunerative prices is established. The Company expects to undertake the development of the remaining area systematically so as to cover the entire leased area of 20,000 acres by 1990. The area under lease would already be available to the Company. The mechanical washery would have a built-in capacity which would provide for a significant part of the further requirements of mechanical washing of salt in the second phase.

1·73 The other aspects of the project to which not much attention has been given in the present project phase will also apparently receive more attention in the second phase. This is specially important in respect of the loading facility to be developed for efficient mechanical loading of ships. It has been stated that construction of a single berth wharf along the six fathom line, 500 metres from the shore, may be thought of at that stage. The loading operation can then be accomplished through the medium of a conveyor system. This will eliminate operations, like loading and unloading of trucks and barges, and ensure a high loading rate. This however involves large capital costs and will also require special permission of Government if such a facility is to be created by a private sector company. Apparently these aspects have not yet been examined in any detail. The representatives of the company pointed out that it is too premature to scrutinise such possibilities in detail at this stage. This part of the second phase development can only be chalked out after some experience is gained regarding how the first phase of the project develops.

CHAPTER II

JUSTIFICATION AND OBJECTIONS

Justification of the Proposal

2·01 The main justification put forward by the applicant company in favour of the proposed Project is that only such a project would make it possible for salt export to be organised on a large scale. At least immediately, the applicant company specially has in mind the Japanese market. It has been pointed out that India used to export common salt to Japan till the year 1970. The exports in the few preceeding years were as follows:

1967	3,60,700 tonnes
1968	5,10,600 tonnes
1969	3,25,200 tonnes
1970	2,06,500 tonnes
After 1970	Nil

2·02 It has been further suggested that the loss of the export market to Japan was due to two factors, *viz.*, low quality of the salt exported and the low rate at which ships were loaded. This statement has been supported on the basis of a Monograph on Salt Industry in India, prepared by Mr. K.M. Thakur, in 1969. The points made in that memorandum regarding the observations of a Trade Mission from Japan which visited India in January, 1969, are as follows:

"*Japanese Imports of Salt*

Japan imported 5·5 million tonnes of salt in 1967, Mexico and Australia being the principal suppliers. Other major exporters were China, USA, Tunisia and India.

"The demand for salt in Japan is increasing at the rate of 6 to 7% per annum i.e. an annual increase of 300,000 to 400,000 tonnes.

Imports of Salt from India

"Japan's imports of salt from India have not increasd in spite of the steady rise in demand for salt, owing to the presence of the following problems:—

(a) *Quality* : The sodium chloride content in Indian Salt is low compared in Mexican salt. Therefore, Indian salt has to be blended with Mexican salt for being upgraded.

(b) *Port and Loading facilities:* The port and loading facilities available at Indian ports are relatively poor. As a result freight charges from India become expensive. Unless India can compete on an equal footing with Australia and Mexico, Japan would not be able to increase imports from India.

(c) *Numerous Exporters:* Existence of a number of small exporters is also hampering the trade as it is difficult to contract bulk business with them. Some efforts towards combining their marketing activities should be made.

(d) *Numerous Ports :* Salt is exported from 12 ports at present. It wll be advisable if one or two Major Ports are identified and developed for salt exports.

Competition from other sources

"The minimum loading rate in most exporting countries is 3,000 tonnes a day as against 1,100 tonnes in India. Australia and Mexico, employing mass production methods, load at the rate of 5000 to 10,000 tonnes per day. Most competing countries are now employing bulk carriers of 20,000 tonnes capacity for transport of salt. In comparison with these efforts, India is quite uncompetitive and hence Japan finds it difficult to increase her offtake of salt from India.

Measures for improving India's competitiveness

"For improving her competitive ability India must adopt the following measures:

(i) The quality of salt for export should be upgraded. The sodium chloride content in salt should be 96% or over.

(ii) Rate of loading must be improved considerably at ports.

(iii) Investment in the salt industry is decentralised at present. For economic production the investment should be concentrated.

(iv) Ports designated for export of salt should be developed to entertain bulk carriers of 20,000 tonnes capacity and above."

2·03 It has been further pointed out by the applicant company that, as early as 1971, the Export Committee on the Quality of Salt for Export, constituted by the Ministry of Industrial Development and Internal Trade, had come to the conclusion that Japan has to be treated as an important market for Indian salt and that all-out efforts have to be made to retain and develop that market. The plea advanced by the Indian salt manufacturers-cum-exporters that the question of quality of salt for export should be left to be decided between the buyers and the sellers was not found to be acceptable by the Committee.* The applicant company has further quoted an extract from the Science and Technology Plan for Salt Industry prepared by the Planning Group on Salt, in which it has been stated as follows:

> "The age-old method adopted by the salt manufacturers have to be replaced with the methods that have scientific bias and also the various operations of salt works have to confer to the developed information which can bring better yield and quality of salt. It has been emphasised elsewhere that only on account of lower quality of salt and a lower loading facilities at the Indian ports we have not been performing well at the export front in the recent time. Quality aspects need also greater attention as far as the outlet for salt in the salt-based industry is concerned. Considering the demand that is likely in the near future for production of caustic soda and soda ash, the demand for quality salt can be inferred. To decrease the input of finance in the economy of salt-based industry it has been felt that the impurities associated with salt need to be avoided by adopting suitable washery units and this is how the washing of salt also comes under the R & D area."†

The main emphasis of the applicant company is that the proposal that it has formulated is very much in line with these expert views which have also been well-known in the industry for some years now.

The Difficulties in Centuring Export Markets

2·11 It has been stated that the difficulties faced by Indian Salt exporters in maintaining and developing exports to the Japanese market are illustrative of the difficulties in the way of developing Indian salt exports. Japan has developed as one of the major importers of salt in the world, the quantity of salt imported by Japan in recent years being as follows:

1972	6·87 million tonnes
1973	7·29 million tonnes
1974	7·75 million tonnes

Even though the Japanese market for salt has been expanding at the rate of 8 to 10% per year at present, India has failed even to maintain its exports leave alone increase them. Japan is now obtaining its salt requirements mainly from the following three sources:‡

Australia	47%
Maxico	43%
China	10%

2·12 The Japanese insist on the purity of salt being as high as 99·5% NacL. This is with a view to avoiding having to undertake further purification processes in their own chemical industries; these are not only costly but also create the problem of affluents which are objected to on ground of pollution. Unless such purity is such guaranteed purity is provided by the existing salt manufacturers. The production of salt of such purity requires the organisation of salt works on modern scientific lines. Further upgrading of the quality of salt requires arrangements for machanical washing. Such arrangements become economical only if the salt works is large enough to make the operation of the washery worthwhile.

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*Extract from the Minutes of the first meeting of the Export Committee on the Quality of Salt for Export held at Bombay on 28-1-1971 (constituted vide Office Memo No. 03012/1/70-Salt dated 3-9-1970 issued by the Ministry of Industrial Development and Internal Trade, New Delhi) (submitted by the Applicant Company).

†Extract from page 27 of Science & Technology Plan for Salt Industry prepared by the Planning Group on Salt (submitted by the applicant company).

‡Business Week—December 1, 1975—MC-Graw Hill Publication, Page 32 (copy submitted by the applicant company).

2·13 There is a further problem that, if effective competition is to be offered to large producers and exporters of salt from countries like Mexico and Australia, it is necessary that salt production should be organised on a scale which would reduce the cost of production and also make large scale loading of salt practicable. Because of the small size of many of the non-captive salt works that exist in India today, salt has to be loaded for export purposes at a large number of points, making it difficult for large scale loading facilities to be provided at any one point. Efficient loading facilities would require special equipment which involves heavy investment. This would become worthwhile only if the total quantity of salt handled at that point is large enough. This may not be possible except for a salt works organised on a large scale mainly with a view to exporting a large part of its production. It is on the basis of this approach that the applicant company has prepared its proposal.

Production of Superior Quality

2·21 According to the appliant company, the quality of salt at present produced in India is not sufficiently high. It contains NaCI to the extent of 94/95% on wet basis. A table showing the composition of salt from Mexico, Australia and India as supplied by the Japanese Sumitomo Corporation is given below:—

	Standard Quality of Salt		
	Mexico	Australia	India
H_2O	2·05	2·00	4·07
I.M.	0·04	0·13	0·14
T.C.	59·13	59·13	57·56
SO_4	0·17	0·15	0·51
Ca	0·06	0·05	0·14
Mg	0·03	0·04	0·15
K	0·02	0·02	0·05
Na	38·29	38·27	37·10
Total	99·79	99·77	99·70
NaCI	97·36	97·24	94·04

The applicant company has pointed out that, out of the salt works existing in India, a very large number (5022 out of 5076) are small works producing 10,000 tonnes or less per year. Due to such small sizes and scattered location, these works are unable to adopt modern scientific techniques and organisation for salt cultivation and purification. By organising its Salt Works on a large and scientific basis, it would be possible for the applicant company to ensure the production of salt of high purity and at the same time ensure its efficient and economical production. The company will also provide facilities for mechanical washing which will further remove impurities and thus ensure a purity of 99·5% NaCI on dry basis.

2·22 It is of great importance to ensure that salt is purified as far as possible at the stage of the production process itself, *i.e.* before it is despatched for use either in the internal markets by chemical manufacturers or in external markets. The applicant company has quoted the Report of the Salt Expert Committee which reads as follows:—

> "There are several instances to our knowledge where chemical manufacturers are incurring high cost in the purification of the salt used by them to make it suitable for their manufacturing process. In the electrolytic process, the presence of sulphates is a serious drawback, which can be removed only by the addition of barium chloride which is a clostly chemical. This adds to the cost of the chemicals produced and its is essential for the country's economy that the industries should obtain salt of good quality."*

It is preferable to improve the quality of the salt at the salt works itself because immediate washing enables impurities of magnesium to be effectively removed with minimum loss of salt. There is also the added advantage that no transport cost is incurred on the carriage of impurities in the salt.

2·23 It has also been stated that the salt of higher purity will be of considerable utility to the manufacturers of caustic soda and soda ash in India. Some of them have captive salt works; but quite a number depend on outside sources of supply for common salt. They have to incur considerable costs for purification of brine and this can be avoided if they are able to secure as raw material salt of higher purity. The cost of washing salt in well designed salt washeries is approximately Rs. 5/- per tonne. The cost incurred by chemical works for purification of brine depends upon the impurities present in the salt which they purchase. According to the applicant company the cost of such purification by chemical treatment on an average works out to Rs. 15/- per tonne for caustic soda manufacturers who are required to eliminate sulphates.

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*Paragraph 2·2·2 on page 361 of the Report of the Salt Expert Committee (as quoted by the applicant company).

2·24 The fact that existing salt producers are not able to ensure the export of high quality salt is indicated by the applicant company by pointing out that, during 1967 to 1969, Salt Works on the West Coast of India paid in penalty Rupees three lakhs to foreign buyers.* It has been further stated that in 1974-75 a number of salt works from the Saurashtra and Kutch Region, who affected shipment of salt to Formosa, had to pay penalty for non-fulfilment of quality specifications.

The Company's Expertise in the Field of Export

2·31 The applicant company was a pioneer in the export of iron ore from Goa and has effected exports of iron ore to countries like Japan, West Germany, Sweden, Czechoslovakia, Belgium and lately, the U.S.A. The company established a mechanical ore handling plant, the first of its type in this part of the world, and also provided a trans-shipper for better loading of large sized vessels in mid-stream. The best performance in loading achieved with the use of the trans-shipper has been about 14,812 tonnes per day. The Company was thus the first to organise mechanical loading operations and has built up expertise in this field. It is at present loading about 1·6 million tonnes of iron ore from Mormugoa Harbour per year; as a result it earned foreign exchange worth over Rs. 10 crores in 1972-73 and 1973-74, and Rs. 15·61 crores in 1974-75.

2·32 In the same connection the company pioneered the establishment of a pelletisation plant for the treatment of iron ore. This has helped to earn more foreign exchange; pelletisation of iron ore fines is worthwhile as pellets have a far higher unit value than fines. The applicant company has also pioneered the production of self-propelled barges of a large capacity. It also designs and constructs dredgers, tugs and deep sea fishing trawlers. It has recently established another unit for similar construction at Gogha in Gujarat.

2·33 As a result of these various export activities undertaken by it, the applicant Company has established contacts with importers in Japan, USA and various other countries abroad and is in close touch with foreign markets. The applicant company is a recognised exporter and has received a certificate of merit from the Government of India for its export performance. All this experience and expertise built up by the company will be of use in developing the proposed Salt Works as an export oriented project.

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Emphasis on Exports

2·41 In the development of salt exports, the quality of salt as well as its price are important. But in the case of salt, the ratio that freight charges occupy in the final price is so high that salt producing areas situated far away from a market may be at a disadvantage. If modern loading facilities are established, the disadvantage can be considerably reduced. According to the applicant company the normal size of ships engaged in the transportation of salt is between 30,000 and 50,000 DWT. Economy in freight rate is possible only when such ships can be rapidly loaded so that they can quickly turn around. This involves the availability of large quantities at the loading point and efficient mechanical loading facilities. Only a large salt works can make available substantially large quantities at one loading point. It has also been pointed out that the average yield of salt per acre is around 100 tonnes in Australia as against 60 tonnes in India. To produce a given quantity of salt, a comparatively larger area of land is required in India. These various factors suggest that only a large salt works of the size contemplated in the proposed project can effectively organise exports to distant foreign markets in competition with established exporters from countries like Mexico and Australia. The applicant company has also worked out a system which will increase the rate of loading to about 5000 tonnes per day. This can be done by it only because of its large size, the site selected and its expertise in handling of bulk commodities for shipping.

2·42 The applicant company has specially emphasised the fact that though Japan is importing salt at present almost exclusively from Australia and Mexico, Japanese importers are looking for alternative sources because of the increase in the f.o.b. price of salt effected by these supplies. It appears that recently prices have been raised from £3.00 or £4·00 per tonne to £7·00. In this situation, it would be possible to enter into long-term contracts with Japanese importers for supply at a reasonably good price. The applicant company has stated that it has already received enquiries in this connection from important Japanese sources. If the proposed project is approved, the applicant company is confident that it would be possible to ensure exports of salt on a large scale to the Japanese market. It is emphasised that this will be a net addition to the exports that are being effected at present from India, as no exports whatsoever are being made to Japan since 1970. The applicant company has indicated that at present it is not contemplating exports to any country other than Japan.

**Source* :Page 2 of "Note on Implementation of Quality Control and Preshipment Inspection of Salt meant for exports" circulated by the Salt Commissioner to the Members of Expert Committee on the Quality of Salt for Export for the meeting held on 28-1-1971 (quoted by the applicant company).

Domestic Industrial Demand

2·51 As mentioned above, the applicant company has pointed out that, by producing salt of a high purity, it will be in a position to satisfy the requirements of the producers of caustic soda and soda ash in a more efficient and economical manner. With population growth and rising standards of living, the demand for caustic soda and soda ash is bound to increase and therefore, from this source alone, additional demand for salt to the tune of 1·8 million tonnes per year will be created by 1978-79. Other industries like fisheries and hide during which require common salt as raw mterial are also developing fast. The company's production will enter the market only in 1979-80. It would be reasonable to expect that by that time the demand for salt from these sources would have increased sufficiently and the problem of accumulated stocks faced by salt manufacturers today as a result of the slow development of caustic soda and soda ash industry will no longer exist. In any case, out of the expected production of 3·5 lakh tonnes by 1981-82, only 25% will be placed on the domestic market. There should be no fear therefore that there would be any glut or that the existing salt producers would be adversely affected. Moreover, the Company will try to market its salt by using coastal transport and not put a further burden on rail transport for the domestic sales of salt. In any case, the applicant company will not be a dominant producer in the manufacture of salt.

Objections to the Proposal

2·61 As already mentioned in the Introduction, specific objections to the proposed Project had been received only from two individuals. At the Public Hearing itself, objections were received from the Indian Salt Manufacturers' Association. It is not necessary for us to specify who raised which objection. A number of the objections overlapped. After analysing the various objections raised, the main points can be summarised as follows:—

1. The applicant company belongs to a large House with a wide range of business activities. It has also undertaken new projects such as iron ore pelletisation, the production of explosives, and a cement plant. The manufacture of salt is not an activity which can be said to belong to the core or heavy investment sector of the economy. It would not therefore be appropriate to permit a Large Business House to enter this *field.* Such entry may create unfair competition to the existing producers, most of them small entrepreneurs.

2. There is already a significant concentration of salt manufacturers in Gujarat on the Saurashtra Coast. These manufacturers are finding it difficult to sell all the salt which they produce, either in the domestic or in foreign markets. Taking the country as a whole, the licenced area of salt manufacture is about 2,24,000 acres. If fully developed and utilized, this would yield nearly 90 lakh tonnes of salt, which would far exceed the total requirements of salt in the next ten years. The actual area at present utilised for salt cutivation is 1,36,250 acres. The reason for a large part of the licensed area not beingl used for salt production is that the present supply of salt far exceeds the demand. As a consequence of these factors, the salt works in Gujarat alone have been carrying forward large stocks. These stocks were as large as 31 lakh tonnes at the end of 1973 and, even after adverse weather in 1975, almost 15 lakh tonnes at the end of 1975. In such a situation, the entry of a large producer with a much greater staying capacity, is bound to effect the competitive position of the smaller salt manufacturers adversely. Even if it is assumed that only 25% of the output from the proposed Project will be domestically marketed, it will have an adverse impact on a large number of small producers. It should also not be overlooked that, eventhough the first phase of the project is said to cover only 5,000 acres of salt cultivation, the total area which the applicant company is obtaining on lease is as large as 20,000 acres. When this is brought into operation, the annual output can be as much as 10 to 12 lakh tonnes per year. This would make the applicant company one of the largest single producers of salt in the country. This would be to the detriment of all the other smaller and independent salt producers.

3. The estimates of demand for salt had been put at a high level as it was expected that, with the additional licensing of units for manufacturing of caustic soda and soda ash, there would be considerable increase in the demand for common salt. It has however been observed that much of this additionally licensed capacity is not coming up and some of the units are not even producing fully up to their licensed capacity. There is a shortfall in damand to the extent of about 1/3rd. That is an important reason for the accumulation of stocks with the present producers of salt. Any sanctioning of a new salt project of the basic of the inflated demand estimate would therefore not be justifiable.

4. As regards exports, the existing producers, with the assistance of the Salt Commissioner and the State Trading Corporation are also making maximum efforts to build up and expand exports of common salt. Markets in various countries have been established and further efforts are continuing. The claim that the quality of salt already produced is not good enough is incorrect. All exporters of salt are subject to quality control by the Salt Commissioner at the loading points. If further exports become possible, the existing producers, without any additional investment, are quite capable of significantly increasing production. It is not therefore necessary to permit the present proposal for the purpose of expanding exports, either to Japan or to any other foreign market.

5. The main reason for India's losing the Japanese market has been the poor loading facilities at the points where salt at present is loaded in bulk carriers. What is necessary is to improve loading facilities and not the creation of a new production facility. Government has been considering this matter for some years, and it is understood that the question of developing a loading facility, which would make it possible for salt to be loaded at the rate of about 10,000 tonnes per day at Kandla, is under the active consideration of Government. Such a facility would help improve the handicap that is at present faced by the Indian Salt industry in exporting salt to Japan. Any attempt by a private sector company like the applicant to set up its own facility for improved loading would be a dupliction of effort. In any case, if the Kandla facility is provided, existing salt manufacturers can easily help recapture the Japanese market.

6. The project cost of Rs. 64 laks mentioned by the applicant company is a gross underestimate. For developing the whole area of 20,000 acres, an investment of around Rs. 300 lakhs would be required. Even if it is assumed that at present, with investment of Rs. 64 lakhs, the applicant company would develop only about 4,000 acres, the estimate does not take into account factors like loading facilities without which the export trargets indicated by the Company would be patently illusory.

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7. The estimate of exports given by the applicant company are over-optimistic. The conditions in the world markets are such that the applicant company may not be able to export on the lines indicated by it. Moreover, if it achieves the export target of 75% of its production, this may be merely at the cost of other Indian exporters. The applicant Company's business connections abroad may be used to the detriment of existing exporters. The fact that the applicant company is already engaged in other exports, and is also involved in shipping, makes it possible for them to resort to manipulations which may work to the disadvantages of small salt producers and exporters.

8. The area where the proposed Salt Works is to be located has already become a barren area due to advancing sands and encroachment on the agricultural land. The sanctioning of such a huge salt Works, with continuance of heavy seepage of saline water into the surrounding areas, will further accentuate the process of creating waste land and upset the climatic and ecological balance of the area.

9. A specific point was made that the applicant company being a private limited company, the benefit of its activities is concentrated in the hands of a small number of persons, mainly one family. It is therefore desirable that no further expansion of the activities of this Company should be permitted. If the project is to be approved, it should be carried out by a new company.

CHAPTER III

ANALYSIS OF THE PROPOSAL

The Present State of the Salt Industry

3·01 According to the applicant company, there are at present 5076 small and big salt works in India, out of which 5022 are small and produce 10,000 tonnes or less each per year. In Gujarat, 30 salt works produce salt from 10 to 15 thousand tonnes each, 21 salt works from 50 thousand to 1 lakh tonnes each and 3 salt works 1 lakh tonnes or more each per year. Gujarat is the region where the production of salt in the country is largely concentrated. This would be indicated by the following table:—

TABLE II

Production of Salt from 1967 *to* 1972

(in '000 tonnes)

Name of the State	1967	1968	1969	1970	1971	1972
Andhra Pradesh	230·3	304·0	186·3	174·3	231·0	363·3
Gujarat	2395·3	2658·7	2945·7	3079·2	2634·5	3346·4
Kerala	1·1	0·6	1·0	0·2	0·7	..
Tamilnadu	636·6	709·8	724·9	631·9	796·3	709·7
Maharashtra	525·8	447·6	458·7	426·8	468·5	579·2
Mysore	6·6	12·3	10·3	8·6	12·2	14·2
Orissa	42·9	78·4	13·6	57·2	25·4	87·5
Rajasthan	404·7	506·0	333·6	451·3	488·3	482·8
Himachal Pradesh	3·6	3·3	3·7	4·4	4·2	4·7
West Bengal	7·8	13·7	11·6	10·7	2·7	12·2
Unlicensed Production	215·7	296·0	372·9	732·9	753·0	903·1
Goa, Diu & Daman	17·8	13·3	11·1	10·7	9·3	13·3
Pondicherry	..	..	..	..	..	0·7
TOTAL	4488·2	5043·7	5173·4	5588·2	5426·1	6517·1

Source : "Salt and Mixed Salt", Central Salt & Marine Chemicals Research Institute, 1974 (submitted by the applicant company).

3·02 Production of salt is undertaken mostly along the coast by the process of solar evaporation. For any substantial production a licence has to be taken from the Salt Commissioner regarding the area over which salt can be produced by the evaporation. The data regarding area licensed and area under actual cultivation (as submitted by the Indian Salt Manufacturers' Association) is given below:—

Name of the State	Licensed Capacity (Total Acres licensed) in 1973	Utilised Capacity (Actual Acres under cultivation) in 1973
Gujarat (Marine)	102909·08	63178·33
Gujarat Inland	49291·27	13096·00
Maharashtra	24208·16	20358·00
Mysore	488·20	488·20
Goa, Diu & Daman	2030·15	1533·10
TOTAL	178928·06	98654·23

3·03 According to the Salt Commissioner, on an average, one acre of land can lead to a production of 50 tonnes of salt per year. Thus the total acreage licensed may be said to be potentially capable of a production of around 100 lakh tonnes of common salt per year. As the data in the above Table show, quite a substantial production of the licensed acreage has not been brought under cultivation. This is said to be because the demand for salt is not adequate to sustain production from all the licensed acreage. The following data provided by the Salt Commissioner supports this contention:—

Year	Stock on the first of the year (sic)	Production	Issues including exports	Balance carried forward (closing stock)
1970	1638·9	3342·7	2786·7	1950·8
1971	1950·8	3012·6	2959·2	1717·3
1972	1717·8	3769·5	3014·8	2370·2
1973	2370·2	4332·0	2910·6	3424·0
1974	3424·0	3591·7	2964·9	4047·5

These data show that the closing stocks of common salt have been increasing and had already reached a figure equal to or larger than the annual production of salt by the end of 1974.

3·04 Regarding the quality of the salt produced in the country at present, the applicant company has provided an extract from the Report of the Salt Expert Commitee of the Government of India (1950) from which it appears that the composition of common salt produced in various areas of Saurashtra varied from 96·7 to 98·8 NaCl on dry basis. The quality in most other salt producing areas, according to this Committee, was usually worse. According to the Salt Commissioner, the salt at present produced in the salt works located in Saurashtra has NaCl content varying from 96% to 98·5% on dry basis, with percentage of moisture varying from 3% to 6%. Regarding the quality of salt not always being to the required standards, the applicant company has submitted an extract from some correspondence emanating from the Salt Commissioner* indicating that the proportion of salt below standard had increased from about 15% in 1968 to about 40% in later years. The applicant Company has also given data to show that in the years 1967, 1968, and 1969 about half of the exporting salt works had to pay penalties as provided in the export contracts for exporting salt containing loss than 94% NaCl.

3·05 Export of common salt to markets abroad has been established for many years. The Table III (annexed) provides data about export of salt from India to various destinations in the period between 1968-69 to 1974-75. The data in this Table show that exports to some destinations, specially East African and certain Asian countries, have been well established. Nepal is almost a captive market. Exports to Japan, which were substantial, have however completely ceased after the year 1970-71.

Future Development—How?

3·11 In order to understand the present state of the salt industry and the lines along which experts think the industry should be developed in future, the following extracts from the Reports prepared for the National Committee on Science and Technology may be of interest:—

> "In the year 1948 the total production of salt in the country was 2·33 million tonnes and salt was imported to the extent of 2·98 million tonnes in the same year. During post-war independent era, a few major salt works were opened mostly in Saurashtra-Kutch regions. The country achieved salt-sufficiency in respect of salt manufacture in the year 1950. Salt was exported to Japan from 1950. The growth of the salt industry was haphazard without consideration of the existing and projected demand for the regions. The major problem for this cheap and essential commodity is its transport to the consuming centres. The quality of salt manufactured in the country is to a large extent substandard. The salt required both for export and by the chemical industries should be of greater purity. ISI lays the standards of purity of salt for chemical industries as 98 per cent. The export of salt during the last four years shows that we are losing the export market due to poor loading capacity and also due to some extent substandard quality. The export of salt during the years 1968 to 1971 are 6·18, 6·21, 4·79 and 3·79 lakh tonnes respectively. From studies

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*Extracts from the Note on the implementation of the Quality Control and Pre-shipment Inspection of Salt meant for export attached with the Salt Commissioner's letter No. 9(4)P/70/129-80-81-82 dated 3-12-70, addressed to members of the Export Committee on the Quality of Salt for Export (submitted by the applicant company).

undertaken it is observed that with better operational control in the system of works of the Indian salt works it is possible to improve the quality of salt to upgrade it on par with that imported by Japan from Mexico and U.S.A."*

"As our future demand of salt is mostly for chemical industries and export, the large-sized salt works will need complete mechanisation of the operations, of harvesting, washing, destacking, filling, loading, etc. It will then be possible to reduce the cost of production, improve quality to suit the industry and increase productivity. Hence, the project aims at complete mechanisation of the future large-sized salt works and partial mechanisation of the existing salt works in view of the heavy capital expenditure involved in complete mechanisation."†

TABLE III

Exports of Salt from India

(Rs. in lakhs)

Destination	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Afghanisthan	0·11	..	..	..	..	..	..
Ceylon	0·27	..	..	..	..	..	..
Congo	1·23	..	..	..	..	..	..
Indonesia	..	..	..	3·88	..	..	6·72
Japan	99·08	59·85	29·28	..	..	..	..
Korea (South)	..	28·96	37·24	59·01	16·96	30·10	25·87
Maladives	..	..	..	0·15	0·24	0·62	0·68
Malaysia	..	7·29	..	..	..	..	..
Nepal	13·51	10·70	16·42	23·90	79·22	49·19	23·11
Phillipines	..	2·43	..	4·48	5·32	..	5·56
Singapore	1·11	2·90	8·24	15·62	6·60	4·39	11·59
Taiwan	12·99	45·97	..	..	..	..	..
Thailand	..	..	0·79	4·03	..	..	..
Uganda Tanzania	..	5·24	1·73	2·30	..	0·01	..
Uganda	28·07	1·57	..	19·22	2·39	..	..
China Rep.	..	..	..	..	4·26	17·94	6·87
Bangla Desh	..	..	..	..	..	..	122·48
Qatar	..	..	..	..	..	..	1·89
Saudi Arabia	..	..	..	..	..	..	6·58
Korea DP. Rep.	..	..	..	..	4·38	3·70	..
Other E. Africa	..	..	..	..	6·52	..	..
Zambia	..	..	..	..	..	0·01	..
Hong Kong	..	..	..	..	0·03	..	..
Kenya	..	..	..	..	2·65	..	..
Liberia	..	..	..	..	2·90	..	..
TOTAL	156·37	164·91	93·70	132·53	124·86	112·48	211·35

3·12 One of the aspects that the Salt Commissioner has emphasised is that there is already a certain lack of regional balance in the salt production in the country. Gujarat produces a very large proportion of the total production of salt and this leads to transport bottlenecks. At the same time, it has been pointed out that there is no ban on further licensing of salt at present. The bulk of the salt used for common consumption is ordinary salt, not specially processed for human consumption. M/s. Sambhar Salt Ltd. produces a small quality of Table Salt and Dairy Salt, and its production in recent years has been as follows:—

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*Report of Science and Technology Plan for Chemical Industry Vol. 2, Statu Report on Chemical Industry, submitted to National Committee on Science and Technology, July 1973 (p. 174).

†Science and Technology Plan, 1974-79 Draft Vol. II, National Committee on Science & Technology, Aug. 1973 (p. 287).

Year	Table Salt	Dairy Salt
1972	62·15 tonnes	304·00 tonnes
1973	57·25 tonnes	214·45 tonnes
1974	5·65 tonnes	121·55 tonnes

3·13 M/s. Tata Chemicals who produce common salt for captive consumption in their chemical works also produce about 20,000 tonnes of Vacuum salt per year and this is marketed for human consumption in different parts of the country.

Demand for Salt

3·21 The demand for common salt arises both for human consumption and for industrial uses. As already mentioned earlier, most of the salt used for human consumption in India is common salt, not specially processed or purified for the purpose of human consumption. As such specially processed salt is more costly, the demand for such salt is limited. The demand for common salt for human consumption is normally assumed to be almost inelastic and directly related to human population though, in a country having a significant number of poor people, some increase in per capita consumption may be expected with an increase in the income of the poorest strata of the society. It has been estimated that the demand for common salt for edible purposes would be 40 lakh tonnes by 1978-79 (the last year of the fifth Five Year Plan). This is estimated on the assumption of a poulation figure of 660 million, at the rate of 6 kg. per capita per annum. The demand for industrial purposes at present is estimated by the Salt Commissioner at about 20 lakh tonnes. The demand arises from the use of common salt in a number of industries, the most important of which are chemical industries producing caustic soda and soda ash. A few large chemical works such as Tata Chemicals, Dharangadhara Chemical Works, Saurashtra Chemicals and the proposed chemical works of Ballarpur Paper have their own salt works. There are however a number of other chemical works which do not have a captive source of common salt and depend upon independent salt works to supply their requirements. It has been estimated that approximately two tonnes of common salt are required per tonne of caustic soda or soda ash to be produced. According to the Planning Commission, the production of caustic soda and soda ash for the years 1973-74 and 1974-75, and the targets of capacity and production as laid down in the Draft Fifth Five Year Plan for 1978-79, were as follows:—

('000 tonnes)

Name of Item	Production		1978-79 (Targets)	
	1973-74	1974-75	Capacity	Production
Caustic Soda	425	423	1000	785
Soda Ash	448	560	1100	880

On this basis, the requirement of common salt by 1978-79 for the production of these two chemicals would be 33·30 lakh tonnes. The requirement of salt for other industrial purposes in 1978-79 has been put at 1·70 lakh tonnes.

3·22 It has been pointed out that the progress in the development of industrial capacity in caustic soda and soda ash producing industry has been slower than anticipated when the Draft Fifth Five Year Plan was formulated. As a matter of fact, it has been observed that, due to the conditions of economic recession prevailing in the economy during the last year or so, even the existing plants are not producing to their full capacity. It would not therefore be wrong to assume that the demand for salt for industrial use may not increase by 1978-79 to 37 lakh tonnes, as envisaged at the time when Fifth Plan was formulated. No data however are at present available to give precise indication of what the shortfall is likely to be.

3·23 As regards exports, the data about the exports that are being effected have already been given above. According to the Salt Commissioner, the target for exports, when the Fifth Five Year Plan was formulated, was 8 lakh tonnes. The composition of these exports was stated as follows:—

4·00 lakh tonnes to Taiwan and Phillipines
0·85 lakh tonnes to South Korea and Singapore
1·75 lakh tonnes to Hong Kong
1·40 lakh tonnes to other countries.

It may be noted that no provision was made in these estimates for export to Japan.

3·24 The question that has to be examined in this connection is whether from the point of view of satisfying the expected demand for different purposes, sanctioning the project would be worthwhile. As the Salt Commissioner has indicated, in terms of overall production capability as such, there is probably enough such capability in the already licensed salt works physically to satisfy the expected demand by 1978-79. This is specially likely to be true in view of the fact that the demand for industrial purposes by 1978-79 is likely to fall much short of 37 lakh tonnes which was the expectation when the Fifth Five Year Plan was formulated. The fact that stocks have increased from year to year at least upto 1974 it is possible that they may decline somewhat as a result of the cyclonic conditions that affected Gujarat in 1975 further supports tho thesis that addition to existing production capacity is not necessary if looked at purely from the point of view of physical capability of production.

3·25 There are however some other aspects of the problem which should not be overlooked. The first is that, as would be indicated by the extract from the Report prepared by for the National Committee on Science and Technology quoted above, the growth of the salt industry has not been a very systematic one and quite a large number of small, uneconomic and inefficient production units have been existing in the industry. These cannot but produce salt of an indifferent quality and generally operate on inefficient and uneconomic lines. While there is no doubt that some of the existing salt works have already attempted to improve their efficiency and quality of production, it is obviously not possible for all of them, specially the smaller ones, to rationalise and modernise their facilities. Small salt works do not easily lend themselves to organisation on scientific lines and they may also not find it easy to find the capital required for rationalisation of their production processes. It is not appropriate to permit a situation in which there is no incentive for continuous improvement in the quality of production. The constent upgrading of the quality of the salt is certainly necessary for improving one of the essential items of common consumption. It is also very important in order to improve the operational efficiency of chemical industries specially those producing soda ash and caustic soda, which constitute important inputs for many other industries. The Commission's investigations from some of the leading units in this industry have indicated that quality of the common salt that is available to these units leaves much to be desired. The result of substantial impurities remaining in the common salt obtained by them from the present sources is that they have to incur significant costs in order to remove these impurities. The costs apparently vary from unit to unit, the estimates submitted to the Commission ranging from about Rs. 9 to Rs. 50 per tonne. This variation would be partly due to the type of impurities that have to be removed from the particular supplies available to a chemical unit, and partly due to the degree of impurities. In any case, there is no doubt that the supply of salt not being of the requisite quality puts an unnecessary burden on the chemical industries. Most of these units have written to the Commission that they would prefer to obtain salt of higher purity provided, of course, that the rise in the price is not disproportionate. From the point of view of the national economy, if salt of higher purity is available to chemical units, it will also mean some savings in transport cost, salt being a bulky commodity. Therefore if a new unit can be brought into existence, which from its inception can be organised on scientific lines so as to produce salt of higher purity. it may provide a much needed input from the point of view of the chemical industry and also provide the most effective inducement for the existing units to improve their quality of production.

3·26 The quality of production is even more important from the point of view of expanding exports. As already mentioned above the estimate of exports by the end of the Fifth Five Year Plan apparently made no special allowance for exporting salt to Japan. We have already referred to the data supplied by the applicant company to show that Japan is one of the important international markets for salt. It is already a large market and a rapidly growing one. India has lost its share in this market because of poor quality and inadequate facilities for loading ships. It is quite obvious that if salt exports have to be earnestly attempted, the Japanese market cannot be ignored. That the present exports are not of the purity insisted upon by Japanese importers has not been seriously questioned by anybody.* What has been said by Salt Commissioner, among others, is that even the existing producers may be able to improve the quality of their production "if the foreign buyers guaranteed purchase of salt from these salt works". In such a case the existing salt works in their own interest, specially in view of the penalty and bonus share clauses in the export agreements, may take steps to improve the quality of salt. Firstly, as already mentioned above, the possibility of existing producers doing this would vary, the larger salt producers probably showing greater capability in this respect than the smaller ones. Secondly, if a market like that in Japan which is already being supplied by well-organised large-scale producers in countries like Mexico and Australia is to be tackled and entry forced into it, it will have to be done by a specially organised sales efforts with guaranteed purity of the produce as insisted upon by the Japanese importers. For this, a salt works specifically organised with facilities from the inception which would ensure high purity would be necessary as quality variation would not be acceptable. It appears that, because of the fear of pollution, the Japanese authorities are insisting now on the quality requirements prescribed by them for more than was the case earlier. A net addition to exports from India may thus be possible if a specific effort is directed towards Japan, as proposed by the applicant company. This would however depend almost entirely on the applicant company being able to organise the Project on the lines suggested by it so as to ensure the production of salt with 99·5% purity.

3·27 It has already been mentioned earlier that, with the predominance of Gujarat in the production of salt in India, transport of salt for human as well as industrial consumption in other parts of the country creates difficulties, specially for railways. The Salt Commissioner has pointed out that salt movement is treated under "Category C preferential traffic" at present. If any part of the salt produced in the proposed Salt Works has to be sent by rail to other parts of the country, it will add to the railway bottlenecks. The Salt Commissioner has therefore stated that it may not be possible to give the same preference to the proposed Salt Works as is given to the existing manufacturers. This aspect has to be kept in view when considering the overall impact of demand on the proposed works. The point made by the applicant company in this context is that the facility of barges which it expects to organise for export purposes will also be utilised for moving salt by coastal transport. The railway bottlenecks will not therefore, in the view, provide any significant difficulty regarding the movement of salt from its works to other consuming areas in the country.

Export-Orientation of the Project

3·31 While as explained in the previous section, the entry of a new salt producer organised on a large scale and with the works set up on scientific lines may be of some definite advantage to the industry and also to the economy, the main justification for the project, even according to the applicant Company, is its export-orientation. The applicant Company has already given an undertaking to the State Government of Gujarat that 75% of its output will be exported. In the present parlance, a project where 60% of output is exported is designated as export-oriented; a project with 75% exportable output can therefore definitely be considered as an export-oriented one. The question that has to be considered in this context is: from the data available to the Commission, does it appear probable and feasible that the applicant Company would be able to attain such an export target at the time its project comes into operation? There are some preliminary points in favour of the applicant Company. The fact that it was the pioneer in Iron ore exports and has built a name for itself as an export house is certainly a point in its favour. The representatives of the applicant Company have produced some correspondence suggesting that there are some enquiries from Japanese importing corporations regarding the possibility of long-term contracts, provided certain conditions such as the quality of salt and loading facilities can be satisfied. The business relationships that the applicant Company has built up with various foreign markets and specially Japan are bound to be helpful in the effort to re-enter the Japanese market and to establish a good footing in it.

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*In this connection the following news item which appeared in the Hindustan Times on February 21, 1976 may be of interest :

"BHAVNAGAR, Feb. 20—Though the annual production of salt in the country was of the order of 6·5 million tonnes, export of the commodity was hardly 0·3 million tonnes due to lack of loading facilities at ports and inferiority of the product, according to Dr. D. J. Mehta, Director of Central Salt and Marine Chemicals Research Institute here.

Speaking at the forth get-together of salt industry and research scientists here this morning, Dr. Mehta said some improvement in the situation could be expected with increased attention being paid to improve loading facilities at ports and the efforts by the institute to improve the quality of the product.

Dr. Mehta said 2·29 million tonnes of salt was consumed by the alkali industries while domestic consumption was about 3 million tonnes. However, the important chemical values of salt and its by-products were practically ignored in the country resulting in loss of valuable foreign exchange."

3·32 It has been emphasised time and again, that one of the most serious handicaps faced by Indian Salt industry in developing exports is the poor loading facilities and therefore the low rate of loading ships that is to be found as the various points from where salt is exported at present. The applicant company has submitted that in the exports of salt from the Indian ports at present, the normal practice is to load the salt in barges alongside the jettion of the salt works. The capacity of these barges is usually 100/150 tonnes. The loaded barges are then towed to the ships, the loading being done manually with the use of buckets of some three tonnes capacity each of which are lifted by means of winches. This operation takes considerable time and thus ships are held up over many days. Moreover, most salt exporters depend for the supply of barges and tugs on the Port Department and the number available is many times inadequate. The loading has to be done in mid-stream except in places like Bhavnagar and Kandla. The result is that the loading rate does not exceed one or two thousand tonnes per day. The applicant Company has quoted a paper Presented by Mr. J. K. Anjaria, the Ex-President of Saurashtra and Kutch Salt Manufacturers' Association,* in support of its statement.

3·33 As indicated earlier, what the applicant Company proposes to do in the first phase of the project is to ensure a higher rate of loading by means of the following:—

(1) A sufficiently large production capability so that the quantity available for loading will be sufficiently large to enable a carrier of a large size (25,000 to 35,000 DWT) to be speedily loaded.

(2) A rough truckway combined with small contracted fleet of barges to enable loading of ships at the rate of about 5000/7000 tonnes per day.

(3) Long-term contracts for transport of salt to make sure that carriers will provide appropriate facilities for salt to be mechanically lifted from the barges and loaded.

The applicant Company claims that during the first phase of the project, which is under consideration now, the barges will be engaged on loading operations only for some 50 to 60 days per year taking into account the quantity that will have to be exported and the expected size of the carriers. That is the reason why it has been suggested that no elaborate arrangements, either for constructing a wharf or for having the Company's own fleet of barges will be economically worthwhile. To induce a contractor to make available the necessary fleet of barges, at the required times, the applicant Company has provided for hire charges at rates much higher than what is normal. The applicant company has also claimed that, as they are in the business of barge construction and also have considerable experience if the operation of barges and shipping, it will be possible for them to make such expertise available to a contractor as to have this operation efficiently organised. The applicant company itself would not like to enter this business at this stage because it would be a diversion from the main-business that is being set up by the Company. A small contractor may be in a much better position to look for other work for the barges during the rest of the year. With their long experience in exports and shipping, the representatives of the applicant company claim that there would be no difficulty in ensuring that ships had the mechanical facility for loading of salt from the barges. If they find that there would be a long-term shipping contracts the ships would be fitted with such facilities. The applicant company at this stage did not think it necessary to decide whether this contract would be made by them or by the Japanese importers. It was pointed out by one of the objectors that Japanese importers of salt appear usually to insist on buying at F.O.B. prices and carrying the product in Japanese ships. The representative of the applicant company said that, while it is true that Japanese importers usually prefer to arrange shipping themselves, the ships are not necessarily Japanese. For example, on the iron ore runs between Goa and Japan, Chowgule's ships are also engaged by the Japanese. But that is a separate line of business. The salt project will have nothing to do with it.

3·34 It appears to us that the approach suggested by the applicant company for the first phase is a feasible one for attaining the loading rate of 5,000/7,000 tonnes per day. It is obvious that this is not as high as the loading rate which is said to be normal in the case of salt exports from Mexico or Australia, where the loading rate is said to be 20,000 tonnes or sometimes even 40,000 tonnes per day. This is bound to imply that the size of the carriers used for salt exports from the proposed Salt Works to Japan will be limited and the freight will be higher than if loading rates were higher and ships used larger. Even then what is proposed would be a significant improvement on the position existing at present and the result would be that exports to Japan may become possible, even though the F.O.B. price received may not be as good as it would be if the loading rate could be pushed up much higher.

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*Extract from the Paper titled: "Infrastructure for Development of Export of Salt from West Coast of India' by Mr. Jayantilal K. Anjaria, Ex-President, Kutch-Saurashtra Salt Manufacturers' Association, Jamnagar, Gujarat—presented at the Seminar held under the joint auspices of S.T.C. & I.S.M.A. at Bombay on 12-12-69:

"In Saurashtra, at most of the ports, the salt is being loaded in the midstream except in Bhavnagar where the small tonnage 4,000 to 5,000 tonnes can be loaded alongside wharf. Same is the situation in the Kutch except for the port of Kandla where it is possible to load 15/20,000 tonnes alongside the wharf."

"With the present fleet that is available from the department on an average, is not possible to give more than 1100 to 1200 tonnes per day rate of loading and as such, this is gigantic problem as to how effectively and quickly we can increase the rate of loading of 4000 tonnes a day if we have to stand in the competition in the world's trade.

'That if the Port Department of Government of Gujarat gives us adequate fleet for such joint loading, some of the manufacturers are today willing to try out this method and provide 2000 tonnes rate of loading even today."

3·35 It has already been indicated earlier that the applicant company has some more ambitious plans in mind for the second and larger phase of the Salt Works project. The representatives of the applicant Company pointed out at the Public Hearing that in case their expectations come out to be true and they find that a much larger quantity of export—of 7 or 8 lakh tonnes—can be contemplated, it may be feasible to think of quite a different set up for loading purposes. Some kind of mechanical loading operation may then be organised either by means of a wharf specially constructed for the purpose, or by setting up a transshipper in midstream. Setting up a wharf involves the question of Government permission. There are questions of future about which the applicant company does not want to commit itself in specific terms at this stage. We appreciate these difficulties and would not like to comment further on these prospects except to say that the applicant's experience regarding ore handling in Goa and involvement in barge construction as well as shipping can stand them in good stead in exploring such possibilities.

3·36 Another advantage of the above mentioned approach to loading facilities in the first phase of the project will be that the question of creating special facilities such as a wharf right near the proposed project can be left open for detailed examination at the time of sanctioning the second phase of the project. We have mentioned earlier that one objection raised to the present proposal is that the Government is already considering a proposal to construct special loading facilities at Kandla Port for the purpose of handling salt exports of a large magnitude. Creation of special facilities by the applicant Company near its own salt Works may lead to duplication and perhaps some non-utilisation of the facilities that may be created at Kandla. It has been pointed out on behalf of the applicant Company that Kandla Port is about 12 nautical miles from the proposed site. Thus, it may prove to be uneconomical for the proposed Salt Works to use the facilities at Kandla for loading salt on ships as transport of salt from the propose site to Kandla may unduly add to costs. It has also been pointed out that the whole question of developing the facilities at Kandla is still under Government's consideration and no one can say at present when the contruction of such facilities will be taken up and completed. The Ministry of Transport and Shipping have informed us that the report of the consultants assigned to do a project study is likely to be submitted in the next few months and, only after the report is received, the Government will consider the whole matter. Whether the project will be taken up in the Fifth Plan period is uncertain. It would not be appropriate to take any firm view on this matter at this stage. It is a good thing that the proposal of the applicant Company being what it is for the first phase, the question of what facilities for loading they may be permitted to construct on a permanent footing can be left open for examination at the time of the proposed expansion.

3·37 From the information that was made available to the Commission by the State Trading Corporation, it appears that exports are at present being effected to a number of foreign markets and there are prospects of intensifying exports to those markets and exploring a few other markets such as those in the Middle East. The S.T.C. apparently has not yet had any successful efforts at exploring the Japanese market. What needs to be made sure is that the proposed Salt Works and export effort arising therefrom should provide a net addition to the export effort already undertaken or which may be expected to be undertaken in future by the existing exporters. This can be done by laying down a condition that out of the 75% committed exports by the applicant Company, none will be permitted to the market which are being already supplied from India at present. The 75% exports must be effected to Japan or to any other foreign markets specified by the S.T.C. Such a condition will make sure that the export commitment of the applicant company genuinely adds and does not merely replace the existing and prospective export efforts of other salt producers.

3·38 An important objection raised by some parties was that entry into the Japanese market was going to be quite difficult. At the same time, once such a large production facility was established, it could not be wasted. Unless therefore there was some certainty about the applicant Company being able to export to Japan, sanctioning the Project would create a threat to the existing small producers. This a genuine apprehension. At the same time, it cannot be ignored that no Japanese importer of salt can be expected at this stage—some four or five years before the date of actual trade—to make a firm commitment, specially when the coming into existence of the project is itself under consideration. It is therefore clearly not feasible to expect the applicant Company to be able to produce anything like a guarantee that it would be able to export to Japan in certain quantities. What is necessary is that the Commission, and finally the Government, must feel satisfied that there is a reasonable possibility that such exports could and would be made. For all the reasons that we have mentioned earlier, it appears to us reasonable to assume that the applicant Company will be in a position to effect exports of salt of the magnitude contemplated. The question, however, remains as to what happens if something goes wrong and exports are not found to be feasible. Firstly, there is the usual provision under the export guarantee by which the applicant Company has to make available the guaranteed quantity to the S.T.C. and accept such return as is permitted under those provisions. The usual bank guarantee would also be provided. On our putting these questions specifically at the Public Hearing, the representatives of the applicant Company agreed that, in case exports are found to be impossible, they would be prepared to close down production. While this would be a drastic step, it would be easier to enforce it in the case of a Large House unit than in the case of a smaller salt producer. This aspect may also be kept in mind when conditions are laid down for sanctioning the project.

3·39 The other objection that was raised by the Indian Salt Manufacturers' Association was the possibility of manipulation of prices by the applicant Company because of its being involved in other business such as iron ore exports and shipping. While there is no reason for us to ensure that the applicant company will resort to any such unfair or illegal practices—we have been able to find no evidence of any such blemish in their record—safety in this respect is ensured by the fact that exports of salt are canalised through the State Trading Corporation. This will ensure that, in the long-term contracts that are entered into for export of salt, necessary safeguards are provided and proper prices are obtained for the salt exported. According to some reports that have been recently published, even though Mexican exporters of Salt have substantial Japanese shareholdings, the Mexican Government has insisted on higher prices than what have been paid by Japanese importers and the Japanese importers have had to agree. We have no doubt that the S.T.C. will take care to see that proper prices are obtained for whatever exports are effected from India.

3·40 Another doubt expressed regarding the possibility of exports to Japan was on the basis that important Japanese industrial groups have substantial shareholdings in the salt producing organisations in Mexico and Australia. How far would it be practicable to assume in the face of this, it was asked, that Japanese importers would like to accept exports from India. Representatives of the applicant Company explained that not all the important Japanese industrial groups involved in chemical industries have shareholdings in the Mexican and Australian salt works; there are other industrial groups who would be quite willing and interested on exploring the possibility of importing salt from India. * Secondly, even the groups which have such shareholdings have recently found out that depending on only one or two sources can create problems for them. It has been reported that in the case of Mexico, even though the Expotadora de Sal, the country's sole exporter of salt, is 75% owned by Mutsubishi Corporation and only 25% by the Mexican Government, the Mexican Government insisted on a rise in the export price of salt and Mitsubishi had to compromise. Australian producers of salt, who are connected with Japanese companies through equity holdings, also appear now to be under official pressure to raise their salt prices. † Thus, there would be a specific incentive for Japanese industry to help develop a new source for their requirements of salt so that there would be some more competition helping it to secure lower prices for its salt purchases.

3·41 Finally, an important question in this context will be whether any significant benefit is likely to be obtained by the national economy as a result of affecting exports of salt on the lines. envisaged by the applicant Company. Even at present, with the quality of salt somewhat lower than what the applicant company proposes to produce, the price that India's exporters are able to fetch is, according to the State Trading Corporation, about $ 6·00 F.O.B. It appears that the price now being negotiated by Mexico and Australian suppliers is about $7·00 F.O.B. The applicant company has estimated that its cost of production of salt will be around Rs. 27 at the point of loading, *i.e.* Rs. 17 as cost of production and Rs. 10 as the cost of loading in the bulk carriers. On this basis, even at a price of $4·00 F.O.B., there would be a significant surplus available to the country. Any higher prices— and these appear likely—would give even a more substantial surplus. Such export would therefore be of national benefit and deserves encouragement.

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*In this connection, the applicant Company has written to the Commission as follows :—

"It is true that Japanese have developed financial interests in production of salt in Australia and Mexico. The Japanese Companies, which have such financial interests, are Mitsubishi Corporation and some others. Nissho-Iwai Co. Ltd., which is a very large Japanese Company , imports 46% of the Common Salt imported by Japan. This Company has a very negligible financial interest in Australia and Mexico.We intend to make a long-term contract with Nissho-Iwai Co. Ltd., for supply of our salt. and we feel that financial interests of Japanese firms in Australia and Mexico will not come in the way of the Company to make breakthrough in the Japanese market, inter alia, because our prices for identical quality of salt will be very competitive."

†See Business Week, December 1, 1975, p. 32. The same weekly, in its issue of December 15, 1975. has indicated that the FOB price, both from Mexico and Australia, is getting finally fixed at $ 7 a tonne for the coming year.

3·42 The applicant Company has submitted to the Commission two letters, one from Okura & Company and another from Nissho-Iwai Company Ltd., indicating that they would be interested in obtaining supplies of salt from India. The fact that the applicant company is in touch with the Japanese market for its iron ore exports further supports its plea. It is also to be kept in view that, as compared to the total imports of salt in Japan now and their growth at a rate of about 10% per annum, exports of two or three lakh tonnes is not going to be so large as to create any major problem. It therefore appears to be a feasible proposition that the applicant Company would be able to export salt to Japan on the lines suggested by it in its proposal.

The Feasibility of the Proposed Project

3·51 Various questions have been raised about the economic and technical feasibility of the project as proposed by the applicant Company. The position in this respect is somewhat better now than it was when the proposal was first referred to us because, in the meanwhile, the applicant Company has got a preliminary project report—a kind of feasibility report—prepared and this has been submitted to us. From this report it is clear that, while the first phase of the project has been worked out with adequate clarity, there is much about the second phase, *i.e.*, the phase when the rest of the 20,000 acres will be taken up for salt cultivation, which needs to be clearly worked out and examined. Therefore, before the second phase is permitted to be taken up, the applicant Company will have to be asked to submit well worked out proposals regarding that phase. It will be necessary to examine those proposals and only after such an examination should the expansion of capacity be sanctioned.

3·52 For the first phase, what is proposed is the development of about 5,000 out of the 20,000 acres to be obtained on lease for the production of salt and putting up a mechanical washery and other necessary facilities, including transport, so as to produce and transport salt both for the internal and external markets. The technical approach that the applicant Company proposes to adopt in developing the Salt Works, the manner in which it proposes to organise the layout so as to ensure a high degree of purity of the product, and the process which it proposes to adopt for mechanically washing the salt have already been indicated earlier. It appears to us that these are reasonably well worked out proposals. They appear to be such that it should be possible to implement the project on the technological basis suggested by the applicant.

3·53 On the economic side, the break up of the capital investment of Rs. 64,00,000/- as submitted by the applicant Company has already been reproduced earlier. For convenience of analysis of the break up under major heads is again given below:—

S. No.	Description	Rs. in lakhs
1.	Earthwork involved in construction of embankment, crystallisers, roads staking ground, sluice gates, etc.	20·0
2.	Building for office, store, workshop, garages, etc.	3·0
3.	Pumping units and accessories	4·0
4.	Belt conveyors	2·0
5.	Tractors, trailors/vehicles etc.	3·0
6.	Water supply line	2·0
7.	Electricity installations	3·5
8.	Salt washery unit	16·0
9.	Salt Harvesting equipment	6·0
10.	Equipment for table salt manufacturing plant	4·5
	TOTAL	64·00

3·54 One preliminary objection to this estimate of capital expenditure was raised by the Salt Commissioner. It was that approximately an amount of Rs. 1,500/- per acre is required by way of investment for a new salt works. On this basis, the project should require about Rs. 75 lakhs rather than Rs. 64 lakhs by way of capital investment. It could even be said that, as the applicant Company proposes to use more scientific methods in its Salt Works so as to produce salt of higher purity and also to establish a mechanical washery with a capacity exceeding the requirements of the first phase of the project—this washery itself requiring an investment of about Rs. 16 lakhs—the estimate of investment made by the applicant Company is an under-estimate and that a much larger amount will be required for the project. This amount will be in no case less than Rs. 75 lakhs.

3·55 The applicant Company has explained this point in the following manner. It is claimed that while the estimate of Rs. 1,500/- per acre of investment may be a correct one in the case of salt works covering a comparatively small area of a few hundred acres, the per acre investment is bound to decline with an increase in the acreage to be brought under one salt works. Economies of scale are bound to operate in this context. It has pointed out, for example, that in the layout that it is thinking of, it proposes to have large-sized ponds both for facilitating the use of mechanical harvestor and for saving the number of ponds that will be required in the Salt Works. It is claimed further that the plot of land chosen for the works is such that it its more or less uniformly flat and devoid of any creeks, thus reducing the work required for preparation of land and saving capital expenditure. it is further suggested that, at least for this phase of the project, it is proposed to use outside contractors for meeting the transport requirements. Even a maintenance workshop is not proposed at this stage; repairs and maintenance work is proposed to be developed largely on outside local workshops. For all these reasons, it is claimed that the estimate formulated by the applicant Company is not an unreasonable one. In any case it is based on detailed calculations regarding the earth work and other items of expenditure*.

3·56 While it is difficult for us to go into all these details and examine whether the project estimate of Rs. 64 lakhs is likely to be neerer the mark that the estimate of Rs. 75 lakhs calculated on a general basis by the Salt Commissioner, it does not appear to us unreasonable to assume that the factors mentioned by the applicant Company will play some role in reducing capital expenditure. Moreover the difference in the two estimates is, in any case, a minor one and would not affect the Scheme of Finance to any significant extent. The main point of importance to be noted regarding this estimate is that only the minimum facilities are being provided in this phase of the project except for the mechanical weashery, which will have a capacity to some extent adequate for a part of the requirements of the second phase. Reliance on outside agencies for transport and even for maintenance workshops may be feasible in the early stages of the project; but it will certainly become a little problamatical in the second phase when the operations attain a larger magnitude.

3·57 The applicant Company has claimed that the amount required for capital investment on the project will be found from the internal resources of the Company. We have examined the financial position of the Company and looked at its operating results during the last five years. We have also taken note of the fact that there are other and larger projects which the Company is taking up in the same period. These include the expansion of the textile unit, an iron ore beneficiation plant (in the Joint Sector), an explosives project, and a cement project. The manner in which the company expects to finance these various projects including the salt project is indicated in Appendix-A-1 & A-2 to this report. Without going into any detailed analysis of the financial situation, we should say that in view of the internal generation of funds by way of depreciation and other internal sources, it appears to us that finding an amount of Rs. 64 lakhs, or even Rs. 75 lakhs, over a period of three years from 1976-77 to 1978-79 would not be very difficult for the applicant Company. The applicant Company also proposes to raise Rs. 20 lakhs by way of bank loans to meet part of the additional working capital requirements of about Rs. 31 lakhs. The equity debt ratio of the Company during the last four years has ranged between 1:0·50 to 1:0·82. This indicates that there should be no difficulty for the company to able to raise this amount by way of borrowings.

3·58 The applicant Company has attempted to work out the provisional budget of annual recurring expenses for the first three yers from 1979-80. As it is expected that the production in the first year will only be 1,50,000 tonnes, increasing to 2,10,000 tonnes in the second year and 3,50,000 tonnes in the third year, it is expected that there would be deficits of about rupees three lakhs in the first year and about Rs. 1·6 lakhs in the second year, a surplus of about Rs. 16 lakhs being available in the third year. The projections are given in Appendix B. An important point in this connection is that, when a production of 3·50 lakh tonnes is reached, it is expected that the cost at loading point will be Rs. 27 per tonne. Thus, even at a price of £4·00 F.O.B. per tonne, a substantial surplus will be realised.

3·59 It is known that, in the process of salt production, a number of marine chemicals will become available. Separation of elements like magnesium is necessary to ensure the production of salt of high purity. Gypsum also becomes available in a asubstantial quantity. The Commission specifically asked the Company as to what scheme it has about the utilisation of these by-products. The answer was that it is proposed to recover Gypsum which will be precipitated in the last stage condensors before precipitation of salt actually occurs. To ensure economy, and also good quality, Gypsum will only be collected every third or fourth year so that a sufficiently thick crust would be available for collection. No special efforts are necessary for collection of Gypsum except that transport will have to be organised on the approach roads which in any case will have to be done in the design and layout of the works. As regards recovery of other by-products, the marketability of the various products will have to be studied and a scheme devised At the moment, the idea is only to set apart an area for the storage of bitterns—a kind of left-over part of the brine—in the proximity of crystallisers "In the beginning the company may consider to dispose of the bittterns by sale to parties who may be interested to put plants for the recovery of one or more by-products." At the Public hearing when this question was again posed, the representatives of the Company pointed out that they would like initially to concentrate on the Salt Works alone and development of the export market. They would see if the use of the by-products or even their development cannot be undertaken through some other agency which may be interested in those lines. If this is not found practicable and in the second stage when the quantities involved would be larger, some specific schemes for the utilisation of these items will be worked out.

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*For details see Appendix A-6.

3·60 The whole discussion of the Project shows that the applicant Company is really taking the first phase of the project as exploratory, mainly for the purpose of organising the production of salt on an efficient and economical basis and establishing an initial entry into the Japanese market. As the representatives of the Company explained at the Public hearing, their approach would be to produce on an experimental basis according to the actual results observed in the first three years of the project. It is their hope that their expectations would be fulfilled, both in respect of being able to establish economical and efficient production of high quality salt and being able to secure long-term contracts for supply to the Japanese market at a good price. If their expectations come out to be true, they propose to go ahead with the second phase of the project which will involve much more elaborate development of the Salt Works as well as related facilities, including those for the recovery and utilisation of by-products. Somewhat better organised facilities for the loading of salt will also be then necessary. Many questions relating to the possible impact of such expansion, including that on the domestic market for salt, will have to be specially examined at that stage. 25% out of 3·50 lakh tonnes in 1980-81 may not perhaps be considered to have a detrimental effect on the existing salt industry. Whether 25% out of an output of 1 million or 12 lakh tonnes by 1989-90 can be treated on the same basis would be quite a different question. This means that, before the applicant company is permitted to go ahead with the second phase of this project, the whole matter should be examined afresh and such guidelines and conditions should be established as would be found appropriate for that stage While the first phase of the project may be approved on certain conditions the conditions to be imposed for the second phase may have to be significantly different.

Adverse Impact on Agriculture?

3·71 As mentioned earlier, one of the objections raised against the proposed Project has been that the establishment of a salt works of the magnitude proposed is likely to have an adverse impact on the economic position of the people living in the area. It has been stated that this is a backward and drought stricken area with acute scarcity of drinking water. The agricultural land has been progressively getting saline and has thus been lost to cultivation. "During the time of the Ruler of this area before Independence, the State Ruler had constructed a Reclamation Embankment in this area to prevent sea-water from encroaching on agricultural land and to conserve rain water. If the salt work is constructed in this area, the salinity from the reservoirs, condensors and crystallisers of the salt Works will permeate the adjoining areas and ruin the entire surrounding agricultural land. As a result, the people in these areas will heavily suffer and in course of time, the surrounding area will turn into desert, changing the ecological balance."

3·72 The applicant Company, in its reply to these objections, has stated that the location of the applicant's project is such as will not affect any agricultural or cultivable land. The a objection is based on a lack of understanding of the exact location of the proposed Project. In the area in which the poposed project is to be located, other salt works are already existing and the proposed salt Works is not going to be the first in that part of the coastal land. Moreover, the land proposed to be allotted to the applicant Company is on the sea side of the 'bundh' which has been constructed by the Government for the purpose of preventing saline encroachments into cultivable or agricultural land. It has been further pointed out that the applicant Company proposes to develop drinking water facilities for its project by means of tube wells. It is also likely to provide employment to the local population to the extent of about 1,000 workers during the construction phase and about 400 during the first phase of operation. Thus, far from adversely affecting the area in which the project is proposed to be located and the population inhabiting that area the project, by making use of the land which is at the moment lying waste, will ensure a better utilisation of existing resources and add to employment opportunities.

3·73 The state Government of Gujarat has confirmed these points made by the applicant Company. It has stated : "the land in question is situated on sea site and there is no agricultural land in the nearby area. There is also no forest in the area. The Port Department and concerned village Panchayats have no objection to grant of land for salt manufacture.*

3·74 The State Government has also confirmed that a reclamation bundh had been constructed in the area and an area of 21,000 acres is protected by this bundh. Apparently, the State Government undertook an investigation during 1976 when the above mentioned objections were raised and came to the conclusion that the proposed site will not have any adverse impact on cultivation.

3·75 At the public hearing, the question was raised and the representative of the State Government who was present there made it clear that the State Government would not like to do anything which would adversely affect agricultural cultivation or the interest of the local population. It was only after examining these aspects that the State Government had decided to support the proposal. In view of this, we do not think that this particular objection can be sustained.

Export Larger than the 75% of Output ?

3·81 One of the points arising out of the objections raised to the proposed Project by the Indian Salt Manufacturers' Association and also to some extent from the comments made by the Salt Commissioner is whether, with the glut that prevails in the salt industry at present, even permitting 25% out of the proposed production to come on the domestic market is not likely to have an adverse impact on the existing industry, many of whose units are smaller and therefore have much less sustaining power in the face of adverse market conditions than the applicant Company. One way out of this difficulty may therefore be to insist on the applicant Company exporting a much larger percentage of its output and not merely 75% as suggested by the State Government of Gujarat and agreed to by the applicant Company. We put this point to the representatives of the applicant Company at the Public Hearing. Their response was that even an export commitment to the extent of 60% is considered adequate by the Government of India for calling a project an export-oriented one. Thus what they have already agreed to is significantly more than what is normally expected. Moreover, this is a new venture and commitment to export 75% is itself quite an onerous burden in a new project. It was therefore felt by them that accepting a larger commitment was not feasible. Moreover, they will have to accept the 75% export commitment from the very beginning of their production, which in itself is quite a difficult undertaking. Further, looking at the difference in the price likely to prevail in the domestic market as against that in the foreign market, they would have the maximum incentive to export more if they can. Therefore, if it is found feasible, they would certainly export more without any compulsion. They therefore resisted the idea of a larger legal commitment to export.

3·82 The data about domestic and external price does indicate that there is likely to be positive inducement to a producer, and specially one organised to produce salt of higher purity, to export as much as he can. If it is therefore possible for the applicant Company to export more, the applicant Company is likely to do so on its own. A legal commitment to export more may however, not be fair. It may even adversely affect the bargaining position of the applicant Company vis-a-vis their foreign buyers. It would also be useful to make it possible for some of the industrial consumers of salt in the country to be able to obtain the salt of higher purity which is proposed to be manufctured by the applicant Company, if they find it economically worth while to do so. This possibility would also have a favourable impact and create an incentive for all the domestic procducers of salt to improve the quality of their output. Introduction of some competition from a modernised production facility may have a useful and healthy impact on the operation of the industry.

3·83 One further aspect relating to the impact on the domestic market of the possible domestic sales by the applicant Company needs to be noted. It is only with reference to the demand expectation upto 1978-79 that fears have been expressed regarding the possibility of a guilt in the domestic salt market. It has been suggested that the growth of salt using industries is likely to be at rates significantly lower than assumed when preparing the estimates of demand for the Draft Fifth Plan and that adequate capacity already exists for meeting the likely demand by the end of the Fifth Plan period. The applicant Company will commence its production only in 1979-80. It will reach the expected output of 350,000 tonnes only by 1981-82. Thus the entry of the applicant Company to a limited extent in the domestic salt market is not likely to have the kind of adverse impact that the present salt manufacturers are afraid of. On balance, therefore, it appears to us that an export commitment of 75% of the proposed output would be quite adequate to meet the requirements of the situation.

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*Letter No. SLT-1072/540-G, dated 30th January, 1976, from the Government of Gujarat, Industries, Mines and Power Department, to the Commission.

A separate Company for the Project?

3·91 One general objection raised regarding the present proposal is that the applicant Company itself is a very large company with diverse activities and thus represents a large mass of economic power. Moreover, its shareholding is confined to members of the Chowgule family and their relatives The addition of the proposed Project with further potentialities of growth into a still large project will further add to the concentration of economic power in the hands of this family. The benefit that would accrue to the owners of the Company would be accruing to a very small number of individuals, mainly from one family. It has therefore been suggested by some persons who appeared before the Commission that the Project should be implemented by a new company instead of by the present applicant Company, thus making it possible for a wider body of shareholders to participate in the prospective benefit from the proposed Project.

3·92 This question was posed to the representatives of the applicant Company at the Public Hearing. In response, it has been submitted to the Commission that the Company be allowed for the time being to set up a separate Division which will undertake the proposed salt Project. Setting up a new independent company immediately for the purpose of undertaking the project will have positive disadvantages. The applicant Company has stated: "At the present juncture, having regard, inter alia, to the relevant provisions of the Income Tax Act, 1961, the Companies Act, 1956, and the Industrial Disputes Act, 1947", a division of the present Company will be in a position to enjoy several benefits. "The project cost involves large expenses on earth work" but such work is not treated as good security by banks for making loans. "No depreciation will be allowed on earth work and therefore the (new) Company will have to make higher provisions for writing of (sic) expenses on earth work within the lease of 20 years without having tax benefits. With the large expenditure on earth work there will be hardly any chance for capital appreciation". In the earlier stages of the project, success of production would be somewhat uncertain because of natural fluctuations. The harvesting of salt can be compared to agricultural harvest, both being somewhat dependent on weather conditions and these are subject to fluctuations from year to year.

3·93 The existing company will be in a far better position to absorb losses in the initial period as compared to a new company. There would be saving in overhead expenses and better utilisation of already existing facilities such as expert personnel. These advantages will not be available to the same extent in the case of a new company even if it is set up with a large participation by the applicant Company. The possibility of successfully issuing equity capital for a new company with a genuine public subscription of a significant magnitude is also doubtful in the present sate of the capital market and with the degree of uncertainty that faces the project at the present stage. The Company has therefore proposed that, while it should be permitted to set up the new undertaking as a division of the applicant company for the time being, it is willing to "convert the Division into a separate company after three years from the date of commencement of production or at the time of substantial expansion whichever is earlier". We agree with this approach of the applicant Company.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

4·01 In view of our analysis of the proposal it would be fair to conclude that the proposed project if implemented on the lines indicated in the proposal will be of benefit to the national economy. It will help in bringing into use idle resources such as waste land and unemployed and under-employed personnel in the coastal areas of Saurashtra, one of the backward regions in the country. It will also help the production of salt of higher quality so as to better serve both domestic and foreign markets and provide an incentive for the rest of the industry to improve its efficiency. On the basis of a commitment to export at least 75% of its output right from the inception of commercial production, it will help recapture of certain foreign markets like Japan which have been lost to the country in recent years and earn foreign exchange which is so vital to the operation and growth of the Indian economy. There are thus many points in favour of the proposed project.

4·02 In view of our analysis of the proposal and its implications, it will however be necessary to ensure that certain possible adverse repercussions do not follow from the establishment of the proposed project. One is that the applicant Company may fail to establish the exports in new markets like Japan, which is one of the main bases to justify the proposal, and this will merely mean adding to the competitive situation in the existing markets to the disadvantage of the existing and smaller producers; or it may merely replace the existing exports which are already being effected to various destinations. To avoid such prospects, two specific restrictions should be laid down when sanctioning the proposed project. The first should be that under no circumstances would the applicant Company be permitted to sell more than 25% of its output for any year in the domestic market. The applicant Company has agreed that, in case it finds that its export commitment cannot be fulfilled, it would not mind stopping production. The applicant Company will have to be held firm to this assurance given by it at the public hearing. Secondly, in order to make sure that the applicant Company really develops exports to new destinations and does not merely compete with the existing producers to the detriment of both it should be laid down that markets, where exports on some substantial scale are already being affected from India, will not be included in the markets to which the Company will effect exports. From the information supplied to the Commission by the State Trading Corporation (see Table III above), the list of such countries should include South Korea, Maladives, Nepal, the Philipines, Singapore and Taiwan. We assume that the State Trading Corporation, through which all exports are canalised, will make sure that the present applicant Company is not permitted to export to these countries at the cost of other salt producers who are already exporting to these destinations.

4·03 As has been indicated in our analysis of the project, the applicant Company has worked out important details only for the first phase of the project which covers an area of approximately 5,000 acres for salt cultivation out of an area of 20,000 acres which it is obtaining on lease from the State Government of Gujarat. It is treating this as a kind of pilot project in the sense that, if its various expectations such as establishment of high quality output and guaranteed and long-term contracts for exports to a rapidly expanding market like Japan come out to be true, it proposes to take up the second and much more ambitious part of the Salt Works development. The second phase of the project involves important questions, such as whether elaborate facilities for loading of salt near the proposed project should be permitted to be constructed by the applicant Company, whether the export commitments should be limited to 75% of the second phase output or it should be raised further, and whether the project should be implemented by the applicant Company or by a new company in which the applicant may have only a certain proportion of equity. This last question is of special importance regarding the present applicant Company because, as already mentioned earlier, its shareholding at present is confined to the members of one family. We appreciate the reasons mentioned by the Company for not taking up the first phase of the project through a new Company even if the new company might be for the time being a 100% subsidiary the applicant Company. The applicant Company has already showed its willingness to hand over the proposed undertaking to a new company once the production as per the first phase of the project is established. We think that it would be very necessary that all these different aspects are thoroughly examined when the second phase of the project is sanctioned. It is therefore necessary to make clear that the applicant Company will specially come before the Government with its proposal for the second phase of the project, and it should accept this as a condition and not explore legal possibilities of expansion beyond the first phase without specific sanction of Government.

4·04 In view of our analysis of the case, and the conclusions reached by us we recommend as follows:—

The proposal of M/s. Chowgule and Company (Private) Limited for setting up a salt works for an area covering about 5,000 acres near Jodiya in the district of Jamnagar (Gujarat State) with a capital investment of about Rs. 64 lakhs may be approved under Section 22 of the M.R.T.P. Act subject to the following conditions:—

(1) From the time the applicant Company produces salt for marketing, it will export at least 75% of its annual output and give the necessary guarantees to the Government in the proper form. In case it is found that for any reason this export undertaking cannot be fulfilled, the applicant Company will cease production if directed to do so by the Government.

(2) Its exports will be directed to Japan and other countries of the world except the following:—

South Korea,
Maladives,
Nepal,
Philippines,
Singapore, and
Taiwan.

It may however export even to these countries with the permission of the State Trading Corporation.

(3) The applicant Company should specifically undertake to approach the Government for permission before it takes up the second phase of the project for setting up a salt works. The second phase would be said to begin from the time it expands salt cultivation beyond the initial 5,000 acres. The Central Government will be entitled to look at various aspects of the proposed second phase of the project, specially the question whether the project should not be entrusted to a separate company to be established for that purpose in which the family shareholding of the Chowgule family will be considerably reduced and also the question whether the export obligation should not be above 75%. The applicant Company should agree to approach Government for sanction of the second phase irrespective of whether such sanction is required under any existing law or not.

(Sd/-)
(JUSTICE J.L. NAIN)
Chairman

(Sd/-)
(H.K. PARANJAPE)
Member

(Sd/-)
(H.M. JHALA)
Member

NEW DELHI DATED
the March 8th 1976

APPENDIX A

A Note on the Scheme of Finance

Financial position of the Company during the last 5 years was under :—

(Rs./lakhs)

Capital Employed	1969-70	1970-71	1971-72	1972-73	1973-74
Net fixed Assets	1054·33	961·10	876·81	769·58	625·31
Working Capital :					
Current Assets	298·38	426·07	454·16	529·10	680·08
Minus Current liabilities	156·10	238·40	261·35	275·03	502·52
Working Capital	142·28	187·67	192·81	254·07	277·56
Capital employed	1196·61	1148·77	2069·62	1023·65	902·87
Share Capital	300·25	600·25	300·25	300·25	300·25
Reserves & Surplus	495·15	429·00	317·17	333·90	376·76*
Loans	439·57	492·80	507·95	427·71	340·01
	1234·97	1222·05	1125·37	2061·86	1017·02
Less Investment, capital work in progress, and losses	38·36	73·28	55·75	38·21	114·15
Capital employed	1196·61	1148·77	1069·62	1023·65	902·87

SOURCE: Applicant Company *Development Rebate Reserve.

In order to have an overall picture of the capital requirements of the Company for its various projects, and to examine how the requirement of finance for the proposed Salt Works fits in this total picture, more details have been collected from the applicant company.

The capital cost of the proposed Solar Salt Works of the Company has been estimated at Rs. 64 lakhs. The Company proposes to finance this amount from internal resources. We have collected from the Company details in respect of the Assets, anticipated Bank and other finances and the Balance amount which will have to be available to the Company from its own resources, a statement showing these details is enclosed as Appendix A-1. Also attached along with the same is a statement showing the availability of funds for investment in its various projects (Appendix A-2). The amount shown as available by way of deferred payment under the beneficiation plant in Annexure A-1 relates to the amount available to the Company on deferred payment facility for Plant & Machinery from Austria. Likewise, the amount shown as available against Beneficiation plant and shown against CMIL relates to the amount of advance payment available to the Company from Japanese Steel Mills out of a total loan of US Dollars 15,000,000. This amount will be repayable from the payment to be made by the Japanese Steel Mills for Iron ore pellets to be delivered to them in the future. Detailed data in regard to the projected cash flow, projected profit and loss account and Balance Sheet for the period in question are also enclosed as Annexure A-3, 4 and 5.

It would appeal that the net requirement of the Company, apart from the provisions already made for its various other projects, would amount to Rs. 487.52 lakhs. Out of this, the requirement for the Salt Works is only Rs. 64 lakhs and this capital expense is proposed to be distributed over a period of three years ending with 1978-79. It would appear from a detailed study of the projected cash flow statement as well as the pattern of distribution of the capital outlay over the period of three years that the company is not likely to have any difficulty in finacing the project from its own resources as represented by the Company.

The Eqnity/debt ratio of the Company during the last four years ranged between 1:0.50 to 1:0.68; this is within reasonable limits. These ratios show that there is enough cushion for further borrowings.

APPENDIX A-I

Scheme of & Finance **Chowgule & Co. Private Limited**

(Rs. in Lacs)

Name of Venture CCPL's own venture :	Assets			Anticipated Bank and other finance		Company's Contribution	
1. **Textile—Spinning**							
Land	0·50		70%	35·55		·50	
Building	50·78					15·23	
Machinery	266·40	317·68	70%	186·48	222·03	79·92	95·65
2. **Textile—Weaving**							
Land	0·50					·50	
Building	21·25		70%	14·88		6·37	
Machinery	150·00	171·75	70%	185·00	119·88	45·00	51·87
3. **Beneficiation Plant**							
Land	52·80	Deferred		155·00			
Building	22·31	Payment		250·00			
Machinery (IMP)		CMIL		100·00	505·00	179·10*	
Machinery (IND)	608·99	684·10				These are already included in our projection enclosed.	
4. **Mining Machinery for supplying fines to Beneficiation Plant.**							
Machinery	434·50	434·50	Term Loan incl. IDBI Facility.		321·40	113·10†	
5. **Salt Project**							
Earthwork	20·00					64·00	
Building	3·00						
Machinery	41·00	64·00			1168·31	503·72	
		1672·02					
Other Investments							
CMIL				‡ We have already provided Rs. 2·05 Crores in our Projection enclosed.		215·00	
Mines						15·00	
Chowgule Textile Mills				Balance of Rs. 10 lacs is shown as additional Investment in attached statement.		36·00	
Industrial Explosives						15·00	
Cement Project						200·00	
						481·00	
Total Funds required					984·72		
Less :—Already reflected—CMIL				205·00			
Beneficiation				179·10			
Mining				113·10	497·30		
					487·52		

APPENDIX A-2

F. Scheme of Finance & Chowgule & Co. Private Limited

Statement showing availability of Fund for investment in its various New Projects

Description	Total Fund	1975-76		1976-77		1977-78		1978-79	
		%	Value	%	Value	%	Value	%	Value
A. Cash surplus in the respective year after tax and after considering current operations of the projects (CMIL) Beneficiation and Mining which will be completed in the respective year									
Opening Balance			616·33		(278·27)		191·94		441·35
B. *New Projects*									
Own funds to be invested as per Annexure :									
Textile—Spinning . .	95·65			15%	14·35	85%	81·00		
Textile—Weaving . .	51·87			15%	7·78	85%	44·09		
Salt	64·00	10%	6·40	25%	16·00	25%	16·00	40%	
Industrial Explosives . .	15·00			100%	15·00				25·60
Mines & Minerals . .	15·00	60%	9·00	40%	6·00				12·60
Chowgule Textile Mills Ltd.	36·00			15%	5·40	50%	18·00	35%	
Cement Project . . .	200·00			10%	20·00	50%	100·00	40%	80·00
CMIL (Additional) . .	10·00		10·00						
	487·52		25·40		84·53		259·39		118·20
C. Balance A—B . . .			590·93		(362·80)		(67·45)		323·15
D. LESS :Interest @ average of 16% on Loans Rs. 3·69 Crores for our projects in 1977-78 (6 months) and in 1978-79 (1 year) . . .	88·56						(29·52)		(59·04)
Balance C.D. . . .			590·93		(362·80)		(96·97)		(264·11)
Cumulative Balance . .			590·93		228·13		131·16		395·27

APPENDIX A-3

Chowgule & Company Private Limited

Projected Cash Flow

(Rupees in 000's)

	30th June, 1976			30th June, 1977			30th June, 1978			30th June, 1979		
	75/76			76/77			77/78			78/79		
Profit as per enclosed Accounts	45457	..	45457	32998	..	32998	37630	4842	32788	56058	1288	56346
Add : Depreciation	16930	..	16930	14022	..	14022	11658	7121	18779	9734	7121	16855
Cash generation from operations	62397	..	62387	47020	..	47020	49288	2279	51567	64792	8409	73201
Add : Cash and Export Credit	..	..	..	..	..	..	..	5000	5000	..	..	..
Term loan (including IDBI facility for Bills Discounting)	32140	..	32140	..	..	..	..	..	..	..	..	..
Austrian Deferred Payments	..	..	..	..	16969	16969	..	2100	2100	..	..	..
Chowgule Metal Industries Ltd.	..	20150	20150	..	8482	8482	..	..	..	..	..	..
Others	..	..	..	..	..	..	..	..	..	..	..	..
Add : Contribution from main activity	..	..	..	..	24614	..	..	..	..	..	..	..
	94527	20150	114677	47020	50065	72471	49288	9397	58667	64792	8409	73201
Less : Loan Repayments Term Loan and cash credits	4923	..	4923	8759	..	8759	8204	..	8204	8112	..	8112
Austrian Deferred Payment	..	..	..	..	..	..	..	..	..	..	2382	2382
Chowgule Metal Industries Limited	..	..	..	..	..	..	..	1200	1200	..	5023	5023
Additions to fixed Assets	43450	20150	63600	..	50065	50065	..	..	..	..	..	..
Investment in Share & Projects :												
Chowgule Metal Industries Ltd.*	8000	..	8000	—	..	..	..	..	..	..	..	..
Others	2000	..	2000	1000	..	1000	1000	..	1000	1000	..	1000
Additions to Stocks and Stores	..	..	..	..	..	..	..	7400	7100	..	..	..
Payments to subsidiaries	..	..	..	..	..	..	..	..	..	..	..	..
Income Tax and Surtax	..	..	..	40474	..	40474	21969	..	21969	12549	..	12549
Reduction in liabilities	..	..	..	..	..	..	..	..	..	..	..	..
Contribution to beneficiation Plant	..	..	..	24614	..	..	..	..	..	..	..	..
TOTAL OUT FLOW	58373	20150	78523	74847	50065	100298	31173	8300	39473	21661	7405	29066
Net cash surplus	36154	..	36154	(27827)	..	(27827)	18115	1079	19194	43131	1004	44135
Cumulative Cash Surplus /Deficit	61633	..	61633	33806	..	33806	51921	1079	53000	95052	2083	97135

*CSL will subscribe 50 lacs.

APPENDIX A-4

Chowgule and Company Private Limited

Projected Profit and Loss Account.

(Rupees in 000's)

	Mining	Pellets	Textiles	MOHP	Power House	Maratha Transhipper	Ship building	H.O.	Total Present activities (1)	Beneficiation Plant (2)	Grand Total (3)
July, 1975 *June* 1976											
Total Income	94573	73470	24266	5250	..	4500	2500	500	205059		205059
Production & Operational Expenses	36026	40500	20738	4881	..	..	..	10330	112475	..	112475
Sales Expenses	20227	4275	565	..	..	..	..	..	25067	..	25067
Interest	2993	1090	879	..	..	..	..	168	5130	..	5130
Depreciation	13483	250	1484	585	..	924	..	204	16930	..	16930
Stock adjustments	..	..	..	..	..	..	..	..	..	..	..
TOTAL OUTGO	72729	46115	23666	5466	..	926	..	10702	159602	..	159602
Profit or Loss	21844	27355	600	(216)	..	3576	2500	(10202)	45457	..	45457
July 1976—*June* 1977											
TOTAL INCOME	81748	73470	24751	5250	..	4500	2500	500	192719	..	192719
Production & Operational expenses	37782	41310	21398	5243	..	..	..	10886	116619	..	..
Sales expenses	16965	4275	575	..	..	..	..	..	21815	..	..
Interest	5275	1090	732	..	..	..	..	168	7265	..	7265
Depreciation	10935	225	1261	585	..	832	..	184	14022	..	14022
Stock adjustments	..	..	..	..	..	..	..	..	..	..	..
TOTAL OUTGO	70957	46900	23966	5828	..	832	..	11238	159721	..	159721
Profit or Loss	10971	26570	785	(578)	..	3668	2500	(10738)	32998	..	32998
July 1977—*June* 1978											
Total income	87744	73470	25245	5250	..	4500	2500	500	199209	21240	220449

APPENDIX A-4 — *Contd.*

Beneficiation cost of Fines	5040	..	..	..	..	..	..	..	5040	..	5040
Production & Operational expenses	35918	42136	22094	5637	..	..	..	11492	117277	17397	134674
Sales expenses	15300	4275	582	..	..	..	..	..	20157	..	20157
Interest	5574	1090	615	..	..	..	..	168	7447	1564	9011
Depreciation	8885	202	1072	585	..	749	..	165	11658	7121	18779
Total outgo	70717	47703	24363	6222	..	749	..	11825	161579	26082	187661
Profit or (loss)	17027	25767	882	(972)	..	3751	2500	(11325)	(37630)	(4842)	32788
1978—79											
TOTAL INCOME	117574	73470	25750	5250	..	4500	2500	500	229544	74104	303648
Beneficiation cost of fines	17600	..	..	..	..	..	..	..	17600	..	17600
Production & operation expenses	36995	42979	22522	6110	..	..	..	12124	120730	60696	181426
Sales expenses	15300	4275	590	..	..	..	..	..	20165	..	20165
Interest	4396	1090	603	..	..	..	..	168	6257	4999	11256
Depreciation	7235	182	911	585	..	673	..	148	9734	7121	16855
TOTAL OUTGO	81526	48526	24626	6695	..	673	..	12440	174486	72816	247302
Profit or (Loss)	36048	24944	1124	(1445)	..	3827	2500	(11940)	55048	1288	56346
1979—80											
TOTAL INCOME	123274	73470	26250	5250	..	4500	2500	500	235744	84016	319760
Beneficiation cost of fines	20000	..	..	..	..	..	..	..	20000	..	20000
Production & operation expenses	38105	43833	22982	6232	..	..	..	12730	123887	68815	192702
Sales Expenses	15300	4275	600	..	..	..	..	..	20175	..	20175
Interest	3271	1090	603	..	..	..	..	468	5132	4205	9337
Depreciation	5904	164	775	585	..	606	..	134	8168	7121	15289
TOTAL OUTGO	82580	49367	24960	6817	..	606	..	13032	177362	80141	257503
Profit or (Loss)	40694	24103	1290	(1567)	..	3894	2500	(12532)	58382	3875	62257

APPENDIX A-5

Chowgule & Company Private Limited

Projected Balance Sheets

(Rupees in 000's)

	1975-76			1976-77			1977-78			1978-79		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Liabilities :												
Capital	30025	..	30025	30025	..	30025	30025	..	30025	30025	..	30025
Reserve	70946	..	70946	83979	..	83979	109415	(4842)	104573	132827	(3554)	129273
Secured Loans:												
Export Finance	23880	..	23880	23880	..	23880	23880	..	23880	23880	..	23880
Cash Credits	5397	..	5397	5397	..	5397	5397	5000	10397	5397	5000	10397
Term loans including D. .P. facilities	38276	..	38276	29517	..	29517	21313	..	21313	13201	..	13201
Austrian D. P. facility	..	..	..	..	16969	16969	..	19069	19069	..	16687	16687
Unsecured Loans:												
Chowgule Metal Industries Ltd.	..	20150	20150	..	28632	28632	..	27432	27432	..	22409	22409
Others	5337	..	5337	5337	..	5337	5337	..	5337	5337	..	5337
Current Liabilities and Provisions	32252	..	32252	32252	..	32252	32252	..	32252	32252	..	32252
Contribution from Main activity	..	1000	..	..	25614	..	..	25614	..	..	25614	..
Provision for taxation	42833	..	42833	22324	..	22324	12549	..	12549	31646	..	31646
TOTAL	248946	21150	269096	232711	71215	278312	240168	72273	286827	274565	66156	315101
Assets :												
Fixed assets	87736	21150	108886	73714	71215	144929	62056	64094	126150	52322	56973	109295
Investment	24180	..	24180	25180	..	25180	26180	..	26180	27180	..	27180
Stocks and Spares:												
Against export finance	25772	..	25772	25772		25772	25772		25772	25772		25772
Others	21589	..	21589	21589		21589	21589	7100	28689	21589	7100	28689
Sundry Debtors	15520	..	15520	15520		15520	15520	..	15520	15520	..	15520
Loans and Advance	11516	..	11516	11516	..	1156	11516		11516	11516	..	11516
Cash Balance	61633	..	61633	33806	..	33806	51921	1079	53000	95052	2083	97135
Contribution to Beneficiation Plant	1000	..	..	25614	..	..	25614	..	..	25614	..	..
	248946	21150	269096	232711	7121	278312	240168	72273	286827	274565	66156	315107

1. Current Activities.
2. New Beneficiation Plant
3. Total

APPENDIX A-6

Estimated Cost of Earth Work

S.No	Description	Measurements	Total cubic ft.
		No. L B H	
1.	Outer bund	$1\times49200'\times\frac{32'+12'\times4'}{2}$	43,29,600
		$1\times34400'\times\frac{28'+12'\times4'}{2}$	27 52,000
2.	Reservoir	$1\times24400'\times\frac{28+12'\times3'}{2}$	19,07,000
		$5{,}4100'\quad\times\frac{24'+12'\times3'}{2}$	11,07,000
3.	Condensers	$1\times13000\times\frac{22'+10'\times3'}{2}$	6,24,000
		$8\times\frac{4100\times20'+8'\times3'}{2}$	13,77,600
		$5\times\frac{4100\times22'+10'\times3'}{2}$	9,84,000
		$1\times\frac{3300\times22'+10'\times3'}{2}$	1,58,400
4.	Crystallisers	51 × 10 acres × 43,560' × 1'	2,22,15,600
			3,55,00,000 Cft.
Amount @ Rs. 5/- per 100 cft.		=	17,75,000
Towards cost of stabilisation of roads, sluice gates Jetty survey work etc.		=	2,25,000
			20,00,000

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Probable cost estimate of cement sheets sheds to house Office, Store, Garage and to provide labour Rest Sheds

1. **Cement Sheet 3 Mts. size** — Total Rs. 7128.00

20'×2' (10')	40 Nos.	for sides
7'×4'	28 Nos.	for sides
2'×20	40 Nos.	for roof
	108 Nos.	Total sheet
	× 66	Rs. per sheet
	648	
	648	
Rs.	7128	

2. **Timber**

4"×3" size
for poll 3×7=21×12' =252'—0' ,, RFT
for roof 7=7×22' =154'—0' ,, ,,
406'—0' ,, =33'10" CFT

3″ × 3% size
for roof :— 3 × 60′—0″ = 180′—0″ RFT
for sides :— 3 × 2 × 60′—0″ = 369′—0″ „
„ „ 3 × 4 × 20′—0″ = 240′—0″ „
= 780′—0″ „
× 9″ size Cft
7020′—0″ „
144 48′—9″ = 48′—9″ cft
82′—7″ 82′—7″ „
× 22/-Rs per
1816

3. L' Hook, Washers, bolt and nut etc.	256
4. Labour Charges	800
for one	10,000
	× 2 Nos
Total :	Rs. 20000

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Appendix B

Chowgule and Company Private Limited

Salt Project

Projected Profit and Loss Account

(Figures in 000s)

Sales	1979-80	1980-81	1981-82
	150 tonnes	210 tonnes	350 tonnes
	Rs.	Rs.	Rs.
@Rs. 32 per Tonne (Present FOB of $ 4)	4,800	6,720	11,200
Less : Sales expenses incl. Barge hire (Stevedorage) Port dues etc. $ 10/-	1,500	2,100	3,500
Net Realisable	3,300	4,620	7,700
Add Closing Stock 25000 @ 19/per tonnes	475	..	..
Less : Cost of Production	3,775	4,620	7,700
Direct 'Cost			
Cost of pumping Brine	700	787	875
Irrigation and Salt Harvestry	600	625	700
Transport of Salt to Stock Yard	350	420	700
Washing	875	1050	1,750
Supervision and overhaul	400	450	600
Labour Welfare	150	150	200
Ground Rent & Misc. Expenses, Mainly of salt fields and annual expenses	300	350	300
	3,375	3,832	5,325
Interest on Working Capital, 16% on Rs. 14 lacs	224	224	224
Depreciation	485	419	365
Total expenses	4,084	4,475	5,914
	(309)	145	1,786
Net Surplus (Deficit)	(309)	(164)	1,622

28—10 M 0f LJ&CA/ND/79

APPENDIX 'C'

Telephone: 383920
383929
Telegrams: ANTICARTEL

No. 1/54/ENQ/75

MONOPOLIES AND RESTRICTIVE TRADE PRACTICES COMMISSION

Travancore House,
Kasturba Gandhi Marg,
Post Box No. 424,
New Delhi-110001

Dated the 7th November, 1975

NOTIFICATION

The Government of India, Ministry of Law, Justice and Company Affairs (Department of Company Affairs) has referred to the Monopolies and Restrictive Trade Practices Commission an application filed by M/s. Chowgule and Company Private Limited, Mormugao Harbour, Goa, under Section 22 of the Monopolies & Restrictive Trade Practices Act, 1969 for enquiry and report. The applicant Company proposes to set-up Solar Salt Works for the manufacture of Common Salt containing 99.5 NaCl on dry basis in Jodiya Taluka of Jamnagar District of Gujarat. Brief particulars regarding the applicant Company and its proposal are given below:—

(1) *Management and Capital Structure*:

The Company is being managed by a Managing Director under the superintendance control and direction of Board of Directors. Its issued and Subscribed Capital of Rs. 3,00,25,000 is divided into 3,00,250 equity shares of Rs. 33-1/3 each fully paid 4,50,375, 4% Redeemable Non-Cumulative Preference Shares of Rs. 33-1/3 each and 1,50,125, 4% Redeemable Non-Cumulative Preference Shares of 33-1/3.

(2) *Present Activities of the applicant Company.*

The Company is at present engaged in mining operations, production of pellets, manufacture of barges, ship-building, textiles etc. It has also received Government's approval for setting up an Iron Ore pelletization plant with an annual capacity of 1.8 million tonnes in the Union Territory of Goa.

(3) *The Proposal*:

The Company has been granted on long-term basis about 20,000 acres of land in Jodiya Taluka of Jamnagar District in Gujarat State to locate the Salt Works. The proposal is to obtain the Salt by Solar Evaporation of sea water and further up-grade it by mechanical washery plants. The proposed solar salt works will operate as a division of the Company. The annual production of salt is estimated to be 3,50,000 metric tonnes against an installed capacity of 4,35,000 tonnes. Out of this, 750 metric tonnes will be used to manufacture 600 metric tonnes table salt. A substantial portion of the salt to be produced is proposed to be exported.

(4) *Scheme of finance*:

The estimated cost of the project it is Rs. 64 lakhs and is proposed to finance it from internal resources.

(5) *Interconnection*:

The Company has admitted interconnection with 17 other undertakings.

All parties who wish to furnish any information or give their comments etc. regarding the proposal which will be of help to the Commission in its enquiry, are hereby invited to do so. The letters may be addressed (in quadruplicate) to the undersigned so as to reach latest by 8th December, 1975.

By ORDER
(Sd.)
(T.N. PANDEY)
Secretary

APPENDIX 'D'

List of persons who participated in the Public Hearing held on 16-2-1976 in the case of M/s. Chowgule and Company Pvt. Ltd., Goa, for the establishment of Solar Salt Works at Jodiya Taluka of Jamnagar District in the State of Gujarat.

M/s. Chowgule and Company

1. Shri V. D. Chowgule, Managing Director
2. Shri Y. D. Chowgule, Director
3. Shri V. V. Chowgule, Director
4. Shri N. S. Phatarphekar, Advisor
5. Shri P. D. Kunte, Advisor
6. Shri K. T. Potdar, Manager
7. Shri B. V. Mahamuni
8. Shri M. H. Jadav
9. Shri J. L. Puri
10. Shri M. L. Gosani
11. Shri D. E. Wadwadia
12. Shri R. N. Dongre
13. Shri A. K. Nalwa
14. Shri A. Ananthakrishnan, Director (Dev.), Ministry of Shipping & Transport.
15. Shri K. P. Srivastava, Under Secretary, Ministry of Chemicals & Fertilizers.
16. Shri A. Masood, SRO (Chemical), Industries & Minerals Division, Planning Commission.
17. Shri H. R. Varma, Director, Planning Commissioner.
18. Shri N. M. Kapoor, Research Officer, Planning Commission.
19. Shri M. P. Parekh, Additional Industries Commission, Government of Gujarat.
20. Shri K. L. Sahni, Salt Commissioner.
21. Shri R. M. Sayta, Chief Marketing Manager, State Trading Corporation of India, New Delhi.
22. Shri K. S. Chopra, Office Manager, STC, New Delhi.
23. Shri P. B. Thakore, Indian Salt Manufacturers' Association, Bombay (Secretary).
24. Shri K. K. Sardal, Indian Salt Manufacturers' Association, Bombay (Hon. Secretary).
25. Shri O. P. Bajpai, Tata Chemicals, New Delhi.
26. Shri S. P. Narang, Tata Chemicals, New Delhi.

No. 2(4)/75-M(I)

GOVERNMENT OF INDIA

MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS
DEPARTMENT OF COMPANY AFFAIRS

BEFORE THE CENTRAL GOVERNMENT

In the matter of an application under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969;

AND

In the matter of a proposal from Chowgule and Company Private Limited for the establishment of a Solar Salt Works for the manufacture of common salt near Jodia, Gujarat.

Chowgule and Company Private Limited (hereinafter referred to as the 'applicant company') submitted an application under section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 (hereinafter referred to as the 'Act') for the establishment of a Solar Salt Works for the manufacture of common salt for an annual installed capacity of 4,35,000 tonnes by cultivating 5,000 acres of land in the first phase of the project near Jodia in the State of Gujarat. The annual production will be 3,50,000 tonnes with an annual turnover of Rs. 112 lakhs by 1981. Salt is a non-scheduled item and the Industries (Development & Regulation) Act is not applicable to the proposal of the applicant company. The capital cost of the project has been estimated at Rs. 64 lakhs (Earth Work —Rs. 20 lakhs; Building Rs. 3 lakhs and Plant and Machinery—Rs. 41 lakhs) which is proposed to be financed from the applicant company's own resources.

2. The applicant company was registered on 24-10-1970 to which the provisions of Section 20(a)(ii) of the Act are applicable and belongs to Chowgule Group. The applicant company is a private limited one and all its shares are held by the members of the Chowgule family and their close relatives. The applicant company is inter-connected with 19 other undertakings.

3. The applicant company advertised its proposal in accordance with prescribed procedure and no objections have been received.

4. The proposal of the applicant company was considered and it was viewed that there was adequate production of salt in the country; there may be adverse impact on other salt manufacturers and there was already heavy concentration of Salt Works in Gujarat State. The estimated investment of Rs. 64 lakhs as given by the applicant company was considered low and the scheme of finance furnished by the applicant company appeared to be unrealistic. The proposal was accordingly referred to the M.R.T.P. Commission (hereinafter referred to as "the Commission") for further enquiry and report.

5. The Commission, after a detailed enquiry, gave its report recommending approval of the proposal for production of 3.50 lakh tonnes of common salt per annum from the cultivation of 5,000 acres of land in the first phase subject to the following conditions;

(i) From the time the applicant company produces salt for marketing, it will export at least 75% of its annual output and give the necessary guarantee to the Govt. in the proper form. In case it is found that for any reason this export undertaking cannot be fulfilled, the applicant company will cease production if directed to do so by the Govt.

(ii) Its exports will be directed to Japan and other countries of the world except the following:—

South Korea,
Maladives,
Nepal,
Philippines,
Singapore, and
Taiwan.

It may however export even to these countries with the permission of the State Trading Corporation.

(iii) The applicant company should specifically undertake to approach the Government for permission before it takes up the second phase of the Poject for setting up a salt works. The second phase would be said to begin from the time it expands salt cultivation beyond the initial 5,000 acres. The Central Government will be entitled to look at various aspects of the proposed second phase of the project, specially the question whether the project should not be entrusted to a separate company to be established for that purpose in which the family shareholding of the Chowgule family will be considerably reduced and also the question whether the export obligation should not be above 75%. The applicant company should agree to approach Government for sanction of the second phase irrespective of whether such sanction is required under any existing law or not.

6. The recommendations of the Commission were examined by the Government and it was noted that the manufacture of salt was not open to large industrial houses and, if at all, a large industrial house was permitted to enter this field it had to be either on the basis of 100 per cent exports or mainly for captive consumption. There was already a glut of salt production in the country and if the applicant was allowed to go in for salt manufacture only on the basis of 75 per cent exports as recommended by the Commission; a large number of existing small and medium producers were likely to be affected adversely. It was accordingly felt that the proposal may be approved only on the basis of 100 per cent exports (with standard rate of rejection) for a period of 10 years, and subject to the following conditions:—

(i) The applicant company shall export 100% of its production subject to standard rate of rejection prescribed by the Government in respect of salt which may not be of the required

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export quality, for a period of ten years. The company shall give necessary guarantee to the Government in the proper form for this purpose.

(ii) Exports shall be directed to Japan and such other countries as may be specified by the State Trading Corporation of India Ltd.

(iii) The applicant company should specifically undertake to obtain proper approval of Central Government before taking up the second phase of the project beyond 5000 acres. The Central Government's approval may be given subject to such conditions relating to dilution of shareholding of Chowgule family, formation of a separate company, export etc. as may be stipulated by the Government.

(iv) The applicant company shall obtain prior approval of the State Government of Gujarat for setting up leading facilities at the proposed site.

7. In terms of Section 29 of the Act, an opportunity of being heard was given to the applicant company. A copy of the report of the Commission was also supplied to the applicant company. The applicant company has intimated in writing that all the proposed conditions are acceptable to it.

8. Having considered the proposal in all its aspects, the recommendations os the Commission, the export potential of the project and the recommendations of the State Government of Gujarat, the Central Government is satisfied that it would be expedient in the public interest to accord approval to the proposal of the applicant company subject to the conditions stipulated hereinafter in the Order:

ORDER

The Central Government, in exercise of their powers under clause (a) of sub-section (3) of Section 22 read with Section 54 of the Monopolies and Restrictive Trade Practices Act, 1969, hereby approve the proposal of Chowgule and Company Private Limited for the establishment of a Solar Salt Works for the manufacture of common salt for an annual installed capacity of 4,35,000 tonnes by cultivating 5,000 acres of land with an annual production of 3,50,000 tonnes in the first phase of the project near Jodia in the State of Gujarat on the basis of the scheme of finance as contained in its application dated the 29th May, 1975 under section 22 of the Act, subject to the following conditions:—

(i) The applicant company shall export 100% of its production subject to standard rate of rejection prescribed by the Government in respect of salt which may not be of the required export quality, for a period of ten years. The company shall give necessary guarantee to the Government in the proper form for this purpose.

(ii) Exports shall be directed to Japan and such other countries as may be specified by the State Trading Corporation of India Ltd.

(iii) The applicant company should specifically undertake to obtain prior approval of Central Government before taking up the second phase of the project beyond 5000 acres. The Central Government's approval may be given subject to such conditions relating to dilution of shareholding of Chowgule family, formation of a separate company, export etc. as may be stipulated by the Government.

(iv) The applicant company shall obtain prior approval of the State Government of Gujarat for setting up loading facilities at the proposed site.

This order shall not be construed as conveying any approval of the Central Government that may be required under any other provision of law for the time being in force.

(Sd/-)
(M. K. KUKREJA)
Joint Secretary to the Govt. of India.

NEW DELHI,
19th November, 1976

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REPORT UNDER SECTION 22(3)(b) OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969, IN THE CASE OF CHOWGULE AND COMPANY PRIVATE LIMITED, GOA

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INTRODUCTION

0.01 M/s Chowgule & Company Private Ltd., (hereinafter referred to as 'Chowgule') as applied to the Government of India, Ministry of Industrial Development and Civil Supplies by the letter dated 7/13-8-75 for letter of indent/industrial licence to manufacture industrial explosives mainly required for mining industry. The proposal was to establish a plant to produce approximately 20,000 tonnes of industrial explosives per annum with a phased programme in the mineral belt of the State of Karnataka. Chowgules are registered under Section 20(a) of the M.R.T.P. Act., and their registration No. is 285/1970 and the registration date was 24-10-70. They also applied to the Government of India, Department of Company Affairs, Ministry of Law, Justice and Company Affairs by their letter dated 23rd August, 1975 under Section 22 of the M.R.T.P. Act., 1969. A general notice required under Rule 4 of the M.R.T.P. Rules, 1970 was published in the Financial Express and Indian Express of 28th August 1975. The Government of India referred the case to the M.R.T.P. Commission for further enquiry and report under Section 22(3)(b) vide Reference No. 51 of 1976 dated 6-4-1976. The Commission by a Notification dated 13-4-76 giving the basic details of the proposals which was published on or around 21-4-76 invited all parties who wished to furnish information or give comments regarding the proposals which would be of assistance to the Commission for enquiry to do so.

0.02 Chowgules gave information in response to a detailed questionnaire by the Commission dealing with the various aspects of their proposal. In responce to the Notification issued by the Commission objections to the proposals were received from

(i) Shri Dayal Saran, New Delhi.
(ii) IDL Chemicals Ltd., Hyderabad.
(iii) M/s Narendra Explosives Ltd., Dehra Dun.
(iv) M/s Indo Burma Petroleum Co. Ltd., New Delhi.
(v) M/s Fertiliser Corporation of India, New Delhi.

0.03 The Public Hearing in the case was held on 8th June, 1976. The list of participants in that meeting is given in Annexure I. Out of the five objectors, three objectors viz. M/s IDL Chemicals Ltd., Narendra Explosives Ltd. and Indo Burma Petroleum Co. Ltd., were represented at the Public Hearing. Ministry of Industrial Development, Director General of Technical Development, Department of Coal, Ministry of Energy, Indian Bureau of Mines, Nagpur and the Planning Commission were also represented at the Public Hearing. This report is being submitted to the Government after taking into account the views expressed by all parties at the Public Hearing and the submissions made by the Chowgules and the objectors in writing before the Public Hearing.

0.04 The Commission's had occasion to consider the proposal of IEL for the expansion of their undertaking manufacturing industrial explosives which was referred to the Commission by the Government for inquiry under their No. 1/41/74-M(III) dated 20-10-1975. The report in respect thereof was sent to the Government on 31st July, 1976. The Commission had also under consideration proposals of WIMCO Ltd. and Maharaja Shree Umaid Mills Ltd. for setting up of undertakings for the manufacture of industrial explosives. In respect of the former the relevant material was already before the Commission and in fact the public hearing was also held on 9-6-76.In regard to the latter all the relevant material was not available till 30-6-1976 and there was the added problem of considering the proposal for manufacture of accessories for which the basic data had to be collected for the first time. The public hearing for that proposal had necessarily to be postponed to 19-7-76.

0.05 In spite of some limitations the Commission was in a position to get a complete and integrated view for the industry as a whole because all the new proposals were sent to it for examination by the Government. It could, therefore, examine all the proposals in proper perspective of the total requirements of national economy and give each proposal its proper place in the national scheme of things. It could also evolve a framework of criteria according to which the proposals had to be tested keeping in view the provisions of Sections 28 of the Act.

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CHAPTER I

THE APPLICANT COMPANY

1.01 The applicant Company was formed on 3rd July, 1943, in the former Portuguese Colony of Goa, Diu and Daman under the Portuguese Commercial Code. The Company was a Sociedade for Quotes Responsibilidade Limited (Limited Company) in the Territoy of Goa, Daman and Diu. It claims to be the first Company to export iron ore to Japan beginning around 1950. In subsequent years regular shipment have been made to Japan, Czechoslovakia and other countries. The Company expanded its activities by establishing mechanised mines at Sirigoa, which were commissioned in 1956. Thus, the applicant Company was established in the business of Iron Ore and Manganese Ore mining and generation of electricity and operation of a mechanical Iron Ore handling plant in Goa before 1960 when Goa was still under Portuguese rule. Other lines of business have been started subsequently: these include, Iron ore Pelletization (1965), manufacture of Textile Yarn (1969), and construction of small Vessels and Barges (1963). The Company was incorporated under the Indian Companies Act, 1956, on 24th June, 1965, with an authorised capital of Rs. 300.25 lakhs. The authorised share capital of the Company at present is Rs. 600 lakhs and the issued and subscribed capital is Rs. 300.25 lakhs. Taking the various activities of the Company together, the capital employed by the company at the end of 1973-74 was Rs. 902.87 lakhs. No shares of the Company have been issued for consideration otherwise than cash and no reserves have been capitalised. The Company is a private limited one and all its shares are held by members of the Chowgule family and their close relatives.

1.02 The applicant Company has admitted interconnection with the following 19 companies:

1. Chowgule Steamships Ltd.
2. Arlem Breweries Ltd. (formerly Pilsner Breweries India Ltd).
3. Janata Machine Tools Ltd.
4. Konkan Fisheries Pvt. Ltd.
5. Goa Food Products Private Ltd.
6. Chowgule Engineering Co. Pvt. Ltd.
7. Chowgule Industries Pvt. Ltd.
8. Chowgule Real Estate & Construction Co.
9. Cartybon Pvt. Ltd.
10. Goa Pesticides Pvt. Ltd.
11. Chowgule Chemicals Pvt. Ltd.
12. Chowgule & Co. (Hind) Pvt. Ltd.
13. Camera Works Pvt. Ltd.
14. Chowgule Brothers.
15. Allo Dies.
16. Kolhapur Oxygen & Acetylene Pvt. Ltd.
17. Hindustan Bulk Carriers Ltd.
18. Chowgule Textile Mills Ltd.
19. Gomantak Pvt. Ltd.

All the undertakings are admitted to be interconnected under Section 2(g)(vii).

1.03 In addition to the new lines of business which have been added by the applicant Company in the last ten years or so, there has also been considerable growth of new lines of business organised through interconnected companies. The inter-connected companies and their main lines of business as well as the capital employed in them are shown in Annexure 2. Most of these companies are closely held companies, with a large part of their equity capital being held by members of the Chowgule family and their close relatives. In addition to the present project, which is being considered in this Report, a few other projects of the applicant Company are under the consideration of the Government. These include Iron Ore Beneficiation plant with a capacity of 18,72,000 tonnes of iron ore concentrates for supply to this Pelletization plant with a capital cost of Rs. 684 lakhs, an Iron Ore Pelletization plant in the Joint Sector with a capacity of 1.8 million tonnes and a capital cost of Rs. 43.64 crores and a project for the manufacture of Salt at the capital cost of Rs. 64 lakhs.

1.04 The Company also has a proposal for installation of 800 looms and 25,000 spindles in their textile unit which is pending with the Ministry of Industrial Development for permission under the Industries (Development and Regulation) Act.

1.05 The main activities of the Company are (i) mining of iron ore (ii) pellatization of ore (iii) ship building and (iv) manufacture of Yarn. Within the mining division there are three activities *viz.*, actual mining of iron ore, transportation by barges and loading of ships. The Company has two Ship-building yards one in Goa and the other one in Gogha near Bhavnagar in Gujarat. According to the Company all the activities except the textile division were complementary to each other and this complementary nature considerably helped in keeping down the cost of iron ore.

1.06 Chowgules claim to have a very well organised Research and Development Section and according to them the following were the salient achievements of the section in the past:

"(1) Preparation of full feasibility report on pilot and industhrial scale on the beneficiation and pelletizing tests on Iron Ore Samples from Donimalai Mines for the National Mineral Development Corporation—This report is according to the applicants comparable to those undertaken by National Metallurgical Laboratory. This report established the working parameters of ore dressing plant and Pelletization Plant flowsheets to be set-up so as to form basis before global tenders for plant and equipment could be released.

(2) A study on pilot scale was undertaken for the Department of Mines, Karnataka State, for the preparation of chrome ore pellets with a view to evaluate the chemical and physical properties of these pellets after induration.

(3) Bench scale tests were conducted for the treatment of Goan Manganese Ores, in order to study the possibility of producing battery grade ore.

(4) Dolomite ores from Andhra Pradesh were tested in the pilot Plant for beneficiation to see the possibility of obtaining a commercial grade dolomite for chemical industry.

(5) Bench scale tests on the beneficiation of silica sands from Maharashtra State were conducted to study the feasibility of obtaining sands for foundry, ceramic and glass industry.

(6) As a part of the development programme, following studies in the field of pelletization and beneficiation were carried out.

(a) Study on the production of cold-bond pellets with the use of suitable binders without recourse to induration of the pellets. The physical and chemical properties of these pellets were undertaken to find out their suitability for commercial use.

(b) Pilot scale tests for Direct Reduction and production and preparation of sponge iron by gaseous and solid reductants.

(c) Pilot Scale tests for determining the magnetic amenability if low grade iron ores of Jasper and taconite types from Kudremukh Bababuddan ranges in Karnataka State.

(d) Industrial and Pilot scale tests for the beneficiation of low grade Goan Iron Ores by the sink and float method and heavy media separation.

(e) Pellets with varying percentages and types of additives, to determine the pyrometallurgical properties of the pellets, were prepared on industrial scale.

(f) Tests were carried out to study the Pelletization properties of Australian (Hammersley) fines by flowsheet designed by us."

1.07 Chowgules were particularly proud of their performance in the field of export of iron ore and according to them they were responsible for about 1% of the total exports of the country. Their performance in this field is brought out in *Annexure* 3.

CHAPTER II

THE PROPOSAL

2.01 The proposal of the Chowgules was to set up a plant with annual installed capacity of 20,000 tonnes of industrial explosives (water gel or slurries) in the State of Karnataka. The capacity indicated was on the basis of maximum utilization of Plant and Machinery. The phased manufacturing programme was to be as under:.

TABLE 1

The phased Programme of Manufacture

Year	Line of Production	Annual Turnover	
		Quantity tonnage	Value Rs.
1st Year	Industrial Explosive	10,000	5,00,00,000
2nd Year	Do.	12,000	6,00,00,000
3rd Year	Do.	12,000	6,00,00,000
4th Year	Do.	15,000	7,50,00,000
5th Year	Do.	20,000	10,00,00,000

Source.—The applicant Company.

2.02 Chowgules did not specify a definite site for the setting up of the Plant, although it was indicated that the site would be in the State of Karnataka. Four possible sites are in their view, *viz.* Mangalore, Chikmagalore, Mysore and Hospet and the final fixing of the site is to be done in consultation with the State of Karnataka and the Government of India. No difficulty is apprehended in regard to the site and each of the sites is said to be amply provided with the necessary infrastructure.

2.03 The cost of the Project as originally contemplated was Rs. 1,50,00,000 and the break up of the cost was given as under:

Land	Rs.	2,50,000
Building	Rs.	15,00,000
Plant and Machinery	Rs.	1,20,00,000
Contingencies	Rs.	12,50,000
	Rs.	1,50,00,000

It was proposed to float a new company with paid up capital of Rs. 50 lakhs consisting of 3,75,000 equity shares of Rs. 10 each and 12,500 redeemable cumulative preferences shares of Rs. 100 each. The share of the applicant Company and/or other promoters of interconnected companies in equity capital was not to exceed 40% of the total holding. It was suggested that setting up of a new company was a pre-requisite for creating the viable financial base for the proposed venture and conducting worthwhile business negotiations with foreign collaborators. At one stage the applicants wanted to offer minority shareholding to the collaborators but this idea was subsequently given up and the proposed collaborators also have acquiesced in this. The balance of the amount of Rs. 1,00,00,000 was to be secured from the public financial institutions.

2.04 In the course of discussions with the Commission the cost of the project was revised to Rs. 240 lakhs. The original estimate was only for the land, building, plant and machinery. The revised estimate is based on the technical offer which included the technical know-how fee and took into consideration the working capital requirements and financing cost. The break up according to the revised estimate was given as under:

TABLE 2

Estimated Capital cost of the Project

(figures in lacs of Rs.)

(a)	Land	2·50
(b)	Building	15·00
(c)	Plant and Machinery	120·00
(d)	Technical know-how fee and detailed engineering fee	30·00
(e)	Preliminary and pre-operative expenses	2·50
(f)	Capital raising expenses	5·00
(g)	Interest on loans and bridge loan during construction period	12·50
(h)	Working* capital margin	50·00
	Total	237·50
	Say	240·00

Source.—The applicant Company.

2.05 The scheme of finance was also revised with the result that share capital was to be Rs. 80 lakhs (Equity 60 and preference 20) and the long term financial loans from public institutions were to 160 lakhs. It is stated that the estimate of cost was based on the budgetary quotations received from the collaborators under the Secrecy agreements and had provision for 20% contingency. The Cost of land including development was taken at Rs. 10,000 per acre. Out of the capital equipment. required, imported equipment was to be approximately worth Rs. 60 lakhs while the remaining 60 lakhs would be spent on the indigenous machinery. The details of the plant and machinery are as under:

(i)	PRM Plant	1 No.
	Capacity	1·4 MT/Hour.
	Cost	$ 85,000 + 20%
(ii)	Water Gel Plant	2 Nos.
	Capacity	3,000 MT per shift per year
	Cost	$ 2,25,000 + 20%

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These plants are proposed to be imported. Rest of the auxiliary equipment like boilers, electrical equipment, water supply equipment, material handling etc. would be obtained indigenously. The cost of plant and equipment has been worked out by taking 40% customs duty, 5% clearing, handling & Inland transport charges, indigenous auxiliary equipment, infrasturcture facilities, material handling, piping etc. and also includes a provision for the erection and commissioning of the plant. All calculations have been based on the ratio of 1$=Rs. 8 so far as imported equipment is concerned.

2.06 A provision of Rs. 30 lakhs has been made to cover expenses of technical know-how fee and basic engineering. This includes:

(1) Down payment of 12.5 $ per metric tonne for designed capacity of the plant (Rs. 20 lakhs).

(2) Provision of Rs. 10 lakhs has been made for the detailed engineering work to be done based on basic engineering data furnished by the collaborators.

A provision of Rs. 12.5 lakhs has been made for interest on loans and bridging loans during construction period on the assumption that weighted period of six months is required during which the company would have taken Rs. 160 lakhs of long term/bridging loans at a weighted average interest of 14% which also include the commitment charges.

The estimate of working capital margin has been made on the basis of the first year production and total estimated requirement of working capital of Rs. 150 lakhs and bank borrowing of Rs. 100 lakhs (margin 33+1/2%).

2.07 According to the applicants, the cost of the project would be Rs. 190 lakhs capital expenditure and Rs. 150 lakhs worked capital, involving an outlay of Rs. 340 lakhs. This would be covered by share capital of Rs. 80 lakhs, long term loans Rs. 160 lakhs and bank borrowing Rs. 100 lakhs. It was pointed out that the ratio of equity to long term loans would be 1:2 which is within permissible limit.

2.08 The applicants are negotiating with E.I. Du Pont De Nemours & Co. Inc. Wilmington, De 19898, U.S.A. for manufacture of their Water-gel Explosives in India. Du Pont are agreeable to grant applicants patent and technology rights to make use of their technology for manufacture and sale of amine nitrate sensitized water-gel explosives corresponding to Du Pont "Tovex and Pourvex Explosives".

2.09 According to Chowgules M/s. Du Pont have been in the field of manufacture of explosives ever since 1802 with the commencement of manufacture of black powder. In 1857, they introduced Sodium Nitrate replacing Potassium Nitrate. In 1880, they started the manufacture of Dynamite. A Gylatine line was added in 1883. In 1902 the manufacture of electric blasting caps was undertaken. According to the applicants M/s. Du Pont have the best equipped laboratories for research on commercial explosives in the world. They developed technology to extend the use of water-gel to small diameter applications and intiated a research programme in 1967. The result of this programme was PRM, one of the family of water soluble sensitizers. They introduced products containing PRM for large diameter boreholes in commercial quantities in 1969. By 1971, according to Chowgules more than 40 million pounds of PRM sensitized water-gels were consumed in U.S.A. alone. Du Pont started field trials for small bore water-gel explosives in 1971. The product was found successful and large volume of sales was registered in 1972. For the users of explosives, water-gel sensitized PRM meant greatly increased safety due to low sensitivity to impact, friction and heat, elimination of head-ache problem associated with conventional explosives. There was also an overall reduction in blasting costs due to improved hole filling characteristics of PRM water-gels compared with conventional dynamite. According to Chowgules M/s. Du Pont hoped to replace dynamite completely by 'Tovex' small diameter chatridged water-gels containing PRM.

2.10 According to the latest communication received by Chowgules from Du Pont by their texlex dated May 5, 1976 the broad terms of the proposed technical collaboration were as under:

"(a) Down payment for technical information would be $12.50 per M.T. of annual designed capacity payable in three equal instalments first one on signing the agreement, second on delivery of technical documentation and the third on Plant's start up and a running royalty payable to Du Pont quarterly at 3% of the net selling price (ex-works price after deducting landed cost of the imported components) for five years from the date of commercial production. The commercial production has been defined as the date when the average production over six months period exceed 75% of the designed capacity or two years after the start up, whichever is earlier.

(b) The Collaborators have agreed to bear all the appropriate Indian Taxes.

(c) The terms of collaboration also provide for start up, technical and marketing assistance upto a period of 55 man days free of cost and any additional assistance will be at per diem rates.

(d) For the above consideration of the lump-sum and royalty, Du Pont will provide exclusive patent and technology rights for the Company in India for both the sensitizer and the Explosives and also the sub-licencing rights for the Company in India. The terms regarding sub-licencing will be mutually agreed to between Du Pont. the Company and the sub-licencee. Further, they would provide basic engineering data and information, flow sheets for the process, descriptions of the process, designed data of the Plant and Equipment, sources of supply of plant, equipment and special items, requirement of labour, utilities, safety precautions, plant layout, building sizes quality control procedures etc., which will enable the Company to design, construct and start up the Explosives Plant.

(e) Messrs Du Pont would also provide continuous improvement information on formulation changes, new formulations, process improvement, packaging improvements, equipment changes, operating procedure changes, improvement of quality, improvement of safety, improvement of efficiency etc. on the licenced products during the period corresponding to royalty payments."

2.11 According to Chowgules the process of the manufacture of slurries consists of three major parts viz. (a) Manufacturing the patented sensitizer (PRM), (b) Mixing and formulation of the industrial explosives and (c) Cartridging of the explosives into small, intermediate and large bore explosives. According to them the equipment affords a wide variety of formulations with various densities and consistancies and a wide spectrum of small, intermediate and large diameter explosives can be manufactured. For the bulk consumers the fluid slurry explosive can be manufactured and supplied in special tankers. The equipment is also fully automatically controlled and all the variables are so controlled as to produce a uniform high quality product.

2.12 The specific advantages of Water Gel explosives produced by this process are said to be:—

(a) safety, as they are not accidentally detonated by impact, shock of fire;

(b) equal performance to or better than dynámite;

(c) elimination of nitroglycerine head-ache;

(d) produce less smoke and noxious gases;

(e) excellent and reliable water resistance characteristics;

(f) lower water content than competitive grades;

(g) faster loading rate and easier than other water gels;

(h) increased energy per foot of bore hole, permitting expanded pattern resulting in lower drilling costs;

(i) because of their fluid characteristics, they can be easily handled and can be transported in bulk carriers to large consumers who want volume delivery. They can be directly charged into the bore holes or may be charged hrough small pump. This would be of great advantage both in operations & cost to large mines like Kundremukh, Bababudan, Donimalai, Bellary Hospet etc.

(j) longer shelf life lasting as long as 9 months to one year;

(k) well suited particularly for hard shooting rocks;

(l) insensitivity to heat and fire;

(m) particularly suitable for surface mining like Bauxite, Iron Ore, Limestone, Dolomite Granite, Sandstone, Gypsum etc.;

(n) does not propoagate as unlike dynamite.

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2.13 According to Chowgules the products manufactured by M/s. Du Pont under the trade names "TOVEX" and "POURVEX" have characteristics and nature which show that they can be easily used in the Indian conditions. The high stability of the explosives under the varying temperature conditions and also the special safety features indicate that they are ideally suited for the open cast mining in India.

2.14 According to Chowgules the present consumption of explosives is of the order of 55,000 tonnes per annum. Assuming a growth rate of 10% in the mining field the demand for Explosives would increase to about 88,500 tonnes by 1980-81 and 1,15,000 tonnes in 1983-84. If the demand of Explosives for Kudremukh and other projects are superimposed then the demand would cross 100,000 tonnes per annum by 1980-81 and 1,30,000 to 1,40,000 tonnes by 1983-84. Regarding the demand in the area surrounding the proposed site, it is the claim of the applicants that the iron ore export at present from Goa was of the order of 12 million tonnes per annum and with the coming up of Kundremukh, Bababudan, Donimalai and Ramandurg projects and with the development and increase in production of iron ore from Bellary Hospet and Goa regions, the rock breakages were expected to go well beyond 200 million tonnes in the next two or three years and this alone would require 20,000 tonnes per annum of explosives, in this area. According to Chowgules, their captive consumption of explosives would be about 2,000 tonnes per annum and projected demand for Goa as a whole would be 6000 tonnes per annum from 1978-79 onwards. The four Tables given in Tables A to D in Annexure 4 giving details of actual mineral production (1967-74), and estimated production 1979-1984, future projection of demands of explosives in Goa & neighbouring areas, the applicants estimates of the demand of explosives upto 1983-84 and the demand projection of explosives for applicant's own mining for next ten years are given in support of the applicant claims.

2.15 According to Chowgules coal production is expected to rise from the current 108 mill. tonnes per annum to 135 million tonnes by 1978-79 and to 250 million tonnes by 1985. Moreover, according to them iron ore production in the southern region was as under:

Goa	14·0 million tonnes
Karnataka :	
(a) Donimalai	4·0 million tonnes
(b) Ramandurg	6·0 million tonnes
(c) Bellary Hospet Mines	10·0 million tonnes
(d) Kudremukh	10·0 million tonnes
Total	30 million tonnes

The projects which are also under consideration and are likely to materialise are as under:

(1) Bababudan	6·0 million tonnes
(2) Kumar Swamy (for Vijaya Nagar steel plant)	11·5 million tonnes
Total	17·5 million tonnes

Overall Iron ore production in the regions of Goa and Karnataka was likely to be 65 million tonnes per year involving rock breakage of over 190 million tonnes and a consumption of explosives of 24,000 tonnes per year. This was without including the areas of Limestone, Bauxite, Manganese, Gypsum. According to Chowgules it would, therefore, be desirable that an installed capacity of 200,000 tonnes by 1985 was ensured.

2.16 According to Chowgules at present both the large units of Explosives are located in Eastern part of India (excepting the new division of I.D.L. which is located at Hyderabad), necessitating large transport costs, hazards in the transport, increased storage requirements at consumer points and unreliable supply.

2.17 It was pointed out by Chowgules that it was presently necessary to have an inventory of about 3 months consumption and as a result of location of their plant in Karnataka this may be reduced to 1 month or even less which will overall save about 2 months stock of explosives. It would come to about 3,000 tonnes at the final level of production and would save about Rs. 1.5 crores to mine owners in terms of inventory charges. According to Chowgules the present difficulties in supplies of explosives for the consumers in the Southern area were (i) excessive delay in supplies (ii) shortage of ordered type of explosives resulting in supplies of available type and (iii) None-availability of certain type of explosives.

2.18 According to Chowgules they want to produce explosive suitable for the open cast mining so as to meet the immediate requirements of the Southern Region. After establishing the production, absorption of the new technological inputs and developing application technology, they propose to manufacture other types of explosives. According to them their unit will be in a position to manufacture small bore explosives, intermediate bore explosives and also supply slurry in bulk containers. At the initial stage it was proposed to manufacture the explosives mainly for open cast mining and quarrying of iron ore, bauxite, limestone, gypsum etc. and depending upon the customer requirements, small, intermediate and large bore explosives will be manufactured.

2.19 The main raw materials to be drawn upon by the applicant will be Ammonium Nitrate, Sensitizer, Amonia, Sodium Nitrate, Nitric Acid, packing materials such as Mylar, Polyester and Polyethylene and some imported proprietary chemicals such as Waque, Perlite, Liox and small quantities of Aluminium and Fine coal. Excepting the proprietary imported chemicals, all the others are manufactured and available indigenously. The total imported raw material will be 1.35% of the turnover. The detailed requirement of the raw materials are as per table below.

TABLE 3

Requirements of raw materials for the Project

Sl. No.	Name of raw Material/component	Indigenous imported	Quantity	Unit Rate	Value Rs.
1.	Nitric Acid	Indigenous	2500 T	@ 2000/T	50,00,000
2.	Amonium Nitrate	,,	5200 T	@ 2000/T1	1,04,00,000
3.	Polythelene Paper	,,	40 T	@ 20/T	8,00,000
4.	Card Board	,,	1200 T	@ 2000/T	24,00,000
5.	Sealing	,,	50 T	@ 10000 per T	5,00,000
6.	Sodium Nitrate	,,	1500 T	@ 1500/T	22,50,000
7.	Amines	,,	1000 T	@ 5000/T	50,00,000
8.	Aluminium Powder	,,	300 T	@ 40K/g	1,20,00,000
9.	Coal (Fines)	,,	200 T	@ 300/T	60,000
10.	Mylar film or equipment	,,	60 T	@ 20/T	12,00,000
11.	Gaur Gum	,,	125 T	@ 2000/T	2,50,000
				Total	3,98,60,000
				US $ C. IF.	
12.	Glass microbaloons (R)	Imported	35 T		47,000
13.	Perlite (R)	,,	110 T		2,500
14.	LIOX (R)	,,	1·5 T		4,500
15.	WAQE	,,	120·0 T		47,000
				$	1,01,000
				Total $	40,000
				$	1,41,400

@$1=Rs. 8·00
Total Rs. 4,55,61,400
Total with Contigencies approximately
(Contigencies approximately 15% = 59,50,000)
Source: The applicant Compant

2.20 M/s. The Fertilizer Corporation of India Limited vide their letter dated the 15th September, 1975 have assured the applicant that they were in a position to cater to their requirements of Monomethylamine 40%. Deepak Nitrite Limited by their letter dated 30th April, 1976 have informed the applicant that their 98% Nitric Acid Plant will be commissioned shortly and they did not envisage any difficulty whatsoever in catering to the entire requirements of the applicant of both 67% and 80% Nitric Acid. Similar is their assurance for Sodium Nitrate to the tune of 1500 tonnes per annum from 1978-79 and 2500 tonnes per annum from 1982-83. onwards.

2.21 M/s. Hindustan Steel Limited Fertilizer Plant at Rourkela while assuring that it might be possible to supply Ammonium Nitrate on long term basis have pointed out certain difficulties like setting up of plant and securing necessary permission from the Ministry of Fertilizer and Chemical and Ministry of Heavy Industries, F.C.I. moreover, have not made any commitment about the supply of Ammonium Nitrate which is the main raw material for the manufacture of slurries. On the other hand, Deepak Nitrite Limited by their letter dated 1st May, 1976 have informed Chowgules that on receipt of the indication of their confirmed requirement, they will be in a position to put up the plant for the Ammonium Nitrate within six months time and they will be in a position to supply their entire requirement of prilled Ammonium Nitrate. Also Mangalore Chemicals & Fertilizers Limited by their letter dated 19-4-76 have informed Chowgules that they were willing to supply amonia upto 10 tonnes per day subject to the negotiation of price and other conditions of supply. All these letters are collectively made *Annexure* 5.

2.22 Chowgules Plan to arrange sale and distribution of their own products all over India. They will also market accessories such as detonators, exploders, etc. manufactured by others, because this was necessary to offer complete service in the field of explosives to the customers. A fully competent technical sales and service Division will be maintained for developing applications and for providing technical services to the customers. A magazine for storing about two weeks production will also have to be built as governed by the Regulations of the Indian Explosives Act.

2.23 Chowgules claim that their Research and Development activities aim at the betterment of the existing product. The expertise which has been gained for the last 30 years in the field of iron ore mining and usage of explosives will provide a strong base for setting up the R & D activity of the new Company. R & D will be set up right in the beginning so as to conduct the field tests of the explosives which will enable the company to market its products by the time it comes into commercial production. It is also proposed to conduct exhaustive trials in the company's iron-ore mines and the major consumer areas by formulating the slurry explosives in small batch plant and if possible by importing DU Pont's explosives for trials.

2.24 According to Chowgules the capacity as indicated by the collaborators is 1.4 metric tonnes per hour which works out to about 3500 tonnes per annum of sensitizer on one shift operation adequate to manufacture 12,000 tonnes of explosives in the explosives plants in two-shift operations. PRM Plant opeating in two shifts and the Explosives Plant operating in three shifts (with the addition of balancing equipment like cartridging Plant, Valves, Pumps, tanks etc.) can produce 20,000 tonnes of explosives per annum.

2.25 On being asked by the Commission to consider reduction in the capacity to 12,000 tonnes and to ask for expansion after the capacity for 12,000 tonnes is installed, the Company pleaded that, according to them, installation of a 12,000 tonnes per annum Plant is not economical for the following reasons:

(1) There is no difference in initial capital investment between 12,000 tonnes per annum and 20,000 tonnes per annum plant as the expenditure in Land, Buildings, infrastructure Storage facilities, PRM Plant, Explosives Plant will remain the same. Thus if the licensed capacity is only 12,000 tonnes per annum then the capital cost would go up from Rs. 1,200 per tonne to Rs. 2,000 per tonne of licensed capacity. This would increase the fixed costs considerably reducing the viability of the Project.

(2) The break even according to table given in Annexure 8 is 9040 tonnes of production. Since bulk of the raw-materials are to be obtained from long distances of Bombay, Baroda etc. any change in the cost of raw materials, transport freight etc., would severally hit this unit if the capacity is reduced from 20,000 to 12,000 tonnes.

(3) Even the 20,000 tonnes per annum Plant cannot sustain inflation factors without resorting to increasing selling prices proportionately.

(4) The margin available for the unit to face the stiff competition from others would be wiped out if the capacity is reduced from 20,000 to 12,000 tonnes per annum.

(5) Assuming that the installed capacity is 20,000 tonnes if the licensed capacity is 12,000 the Unit will not be viable as shown in the cost of production profitability statement which is made Annexure 8. The profit after tax will come down to Rs. 11.44 lakhs in 66th year which gives only a return of 14.3% on Shares Capital and 4.77% on total capital employed.

(6) Apart from the above economic consideration the fact remains that the demand in the area specified is around 18 to 22,000 tonnes per annum and if the capacity of the plant is reduced to 12000 tonnes then it will not leave much scope for variation in the product-mix as per the requirement of mine operators and this may result in poor operating economics of the plant and mines similar to the present conditions prevailing in Goa.

(7) The funds generated should also be adequate for undertaking continous research and development in the field of explosives and hence 20,000 tonnes per annum plant is preferable to 12,000 tonnes per annum plant.

2·26 According to Chowgules the project fulfil the criteria laid down in Section 28 of the Act as under:—

(1) The proposed project will be set up at the consumer point of the explosives in the heart of the iron-ore mines in the State of Karnataka (Particularly Kundremukh, Bababud-an, Donimalai, Ramandurg, Bellary Hospet areas) and also in close proximity of iron-ore mines located in the Goa and Maharashtra regions. The Unit will also be able to meet explosives requirements of the Southern region, namely,

Kerala, Tamil Nadu and Andhra Pradesh. The supply will be more reliable, economical and when the consumer requires so as to reduce inventory. In view of the close proximity of the mines, the transport hazards and costs will also be substantially reduced.

(2) there will be less pressure on Railways and other modes of transport.

(3) The proposal will help the dispersal of industry especially the critical explosive industry enabling optimum utilization of industrial resources and industrial capacities in that region. The proposed site is also located strategically from the point of view of defence.

(4) New technological inputs and continuous access to R &D of a world renowned firm such as Du Pont will be in the interest of the industrial development of the country. The types of explosives proposed to be produced are the latest innovations in the field and have decided advantages over other conventional explosives. It will be possible to open new avenues and effect changes in the application technology.

(5) While the two existing producers are dominant undertakings, one of them is a subsidiary of a foreign concern and the other is having a substantial foreign equity by a foreign company. The new undertaking by the applicants will be a 100% Indian Company with broad-based shareholding. This serves both the criteria, namely, development of indigenous firms and countervailing concentration of economic power and checking of the dominance of a few in the field of explosives.

(6) The industry will be located in one of the backward areas.

2·27 The expected schedule of implementation of the Project according to Chowgules is as under :

(a) Within three months from the date of receipt of the Industrial licence the Company would be able to located all the sources for fabrication of the Plant and machinery both imported and indigenous.

(b) Within three months from the date of receipt of the Industrial Licence the Company would be able to acquire the land required with the help of State Government, and within 6 months all the infrastructure facilities would be firmed up.

(c) The other details of implementation are estimated as :

(i) Placement of orders for machinery	One month from the date of receipt of import licence.
(ii) Estimated delivery of Plant and equipment	9 months
(iii) Receipt of Plant and equipment of site	2 months
(iv) Erection, commissioning and start up	3 months
(v) Trial production, testing, establishment of regular product etc.	3 months
Total	18 months

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CHAPTER III

SUPPORT AND OBJECTIONS

3·01 The proposal (by the chowgules) has been supported by Coal India and the DGTD. According to Coal India, the licensed capacity as at present (including capacity still to be set up) was 1,27,000 tonnes while total requirements were estimated at 1,35,000 tonnes by 1983-84. It was also necessary to make allowance for working below capacity on an average of 15% to 20%. The licensed capacity was arrived at by Coal India as under :—

Company	*Licensed Capacity*
IEL	35,000 tonnes
IDL	30,000 ,,
LOX	3,000 ,,
FCI (Prilled AN)	9,000 ,,
Bhandara	5,000 ,,
IBP	20,000 ,,
FCI (Slurry)	15,000 ,,
Narendra & Sons	10,000 ,,
	1,27,000 ,,

According to Coal India, explosives are the main input to maintain production of Coal and it was, therefore, necessary to ensure additional capacity. It was pointed out that coal industry at present depended mainly on IEL and IDL and any breakdown, accident or strike at their works could cause disruption in supply and hamper coal production. According to Coal India, however, it would be necessary to give priority to Applicants who want to enter into the area of permitted explosive, preferably, NG based ones, because, according to Coal India, performance of slurry was not encouraging so far.

3·02 DGTD supports the (Chowgules') proposal on the following grounds extracted from and as enclosure to their letter to the Commission :—

"*Demand for Industrial Explosives :*

Consequent to the energy crisis and the emphasis on raising the production of coal, the demand for Industrial Explosives, which is an essential input in the mining of coal, is expected to rise somewhat steeply during the Vth and VIth Plans. In fact the recent spurt in the production of coal has already led to noticeable rise in the production of explosives during 1975 as compared to 1974—production is expected to rise by about 7,000 tonnes. During the next ten years more and more coal is likely to be raised through open cast mining projects such as Singrauli and it expected that somewhat larger quantiites of explosives per tonne of coal raised would be required as compared to the previous years. Coal production is expected to rise to 135 to 145 million tonnes by 1978-79 and 250 million tonnes by VIth Plan end. In addition to this, there are important schemes for raising the production of iron ore, opening of new non-ferrous metal mines, opening up of other mines, such as rock phosphate and quarrying of limestone for increased cement production etc. Explosives would also be required for building of dams, canals, roads, geological survey of minerals including seisomographic survey of oil wealth. Taking all these factors into account, it has been estimated that the demand for Industrial Explosives would rise to 84,000 tonnes by 1978-79 and may be 150,000 tonnes by VIth Plan end. It would therefore be necessary to have an installed capacity of about 100,000 tonnes by 1978-79 and about 160,000 tonnes by VIth Plan end. It is therefore necessary to approve some more schemes both in the public sector and private sector keeping in view the fact that some of the schemes indicated above and the new schemes under consideration are likely to spill over into the VIth Plan.

"*Status of Technology:*

Throughout the world, the production of Explosives is shifting from the Conventional Nitro Glycerine based explosives to slurry Explosives based on Ammonium Nitrate this trend is also visible in the field of Industrial Explosives in our country. For example, the production of NG based Explosives during 1975 and Slurry Explosives is expected to be of the order of 35,000 tonnes and 12,000 tonnes respectively whereas just four years ago the total production of Explosives was entirely based on Nitro Glycerine. Barring the two schemes viz. one of Bhandara in the public sector and the other by Narendra Explosives at Lalitpur, all other schemes already approved and under consideration are for setting up of Slurry Explosives plants. Till recently almost all the permitted explosives i.e., explosives which are allowed to be used in gassy coal mines were based on Nitro Glycerine. Recently, however, significant quantities of permitted slurry explosives have also become available and are in use in coal mines with the approval of the Director General of Mines Safety. It is expected that further progress would be made in the development of permitted Slurry Explosives during the next ten years and this would lead to faster growth of Slurry Explosives. However, it need be mentioned here that Slurry Explosives are ideally suited for use in open cast mining of coal and other ores and are, therefore, to find extensive use in open cast mining technology in the next ten years. Both the existing plants, however, are producing explosives on the basis of foreign technical and financial collaboration even though IDL Chemicals have done considerable research and development work in relation to slurry technology. It may, however, still be necessary to allow foreign collaboration in the field of explosives with a view to ensure adequate production of Industrial explosives for meeting the requirements of the mining sector of the economy.

3·03 The Department of Banking, which was mainly concerned with the Scheme of Finance, broadly accepted the scheme proposed by (Chowgules) and felt that the generation of Rs. 20 lakhs for participating in the equity of the new company would be feasible for them. The Department of Economic Affairs, which was also concerned with the Scheme of Finance, approved of the Scheme of Finance by Chowgules provided, the shares of the new company were listed on a recognized stock exchange, loan from financial institutions was subject to the convertibility clause, equity: debt: net block ratio was 1:2:4 and no foreign collaboration was allowed. As far as the Department of Economic Affairs was concerned, the only condition imposed by it, which is not acceptable to Chowgules, is the one about the foreign collaboration.

3·04 The proposal has been opposed by one Shri Dayal Saran, Indo Burma Petroleum Company Ltd. (IBP), Fertilizer Corporation of India Ltd. (FCI), Narendra Explosives Ltd. and IDL Chemicals Ltd. All the objectors have sent written memoranda objecting to the proposal. M/s. IBP Ltd., Narendra Explosives Ltd. and IDL Chemicals Ltd. were represented at the public hearing and voiced their opposition to the proposal.

3·05 The opposition of IBP and FCI was in principle indentical. It was pointed out on behlaf of IBP that technical collaboration agreements have been formally executed between IBP and Ireco Chemicals, U.S.A. and in the agreements, there was a specific provision for the FCI to acquire the same technology should it decide to do so. According to the IBP, the requirements of industrial explosives will be adequately covered by the production from the existing units, approved expansions and the new capacity sanctioned and being set-up . For the Sixth Fiver Year Plan as and when capacity for manufacture of industrial explosives would be needed, IBP claimed that it will be fully geared for setting-up such capacity either by expanding the plants or by setting-up new plants. It was pointed out that the raw material for the industry came predominantly from the public sector and most of the consumers of the future at least will be fully Government companies. It was, therefore, according to IBP, appropriate to let the public sector set-up capacity in the production of industrial explosives and this will have a regulatory effect on product availability, quality and prices resulting from competition between the existing units and the new public sector units. It was also pointed out that it will be possible for IBP to put up production capacity beyond the initial 20,000 tonnes without making any lumpsum payments and even the payments of royalty will cease after a certain period. According to both IBP and FCI, capacity of the public sector should be least equal to that of private sector if public sector is to be an effective instrument of healthy competition in this industry. According to FCI, it was for the public sector to acquire and master technology in the stragic field of explosives and simultaneously engage in R & D efforts on a purely indigenious basis rather than depending perpetually on technical services from abroad. It was contended by the FCI that the only know-how that was required by them was regarding the last step of formulating, blending and packaging in the high explosives and of the process. It was a simple step according to the FCI but there were a number of safety aspects involved and certain technological features as for example of air incorporation into the mass, are highly specialised and the technical collaboration was required largely for this purpose.

3·06 It was also pointed that when the two public sector units are prepared to put up as much capacity as needed, there is no justification for allowing the entry of a large Industrial House in this field which will only result in further concentration of economic power and weaken the competitive position of the recently licenced new entrants and public sector units against existing dominant units. It was also suggested that it was not advisable to allow too many parties to manufacture explosives and that the proposal should not be approved unless availability of the required raw materials was finally established.

3·07 M/s. Narendra Explosives Ltd. have already got an industrial licence and Letter of Intent for production of 10,000 tonnes of Nitro Glycerine based explosives at Lalitpur in the State of Uttar Pradesh. They have also an assurance of collaboration from M/s. J. Maisgner of W. Germany. There was a delay in the finalisation of their scheme because the Government had itself asked them in 1972 not to proceed with the scheme till a further clearance was given and that clearance was given only in 1973 and licence was given to them only in 1975. Their main difficulty now is long-term finance and so far they are negotiating with the financial institutions for help. They have opposed the proposal on the ground that the requirements of the country based on the market survey as well as the reports of the Government will be sufficiently met by the capacity licensed and capacity proposed to be set-up. They also placed that the basic principle was to avoid concentration of the industries in a few hands, and to allow manufacture of goods of vital importance by non-monopoly houses. According to Narendra Explosives, new enterpreneurs will not survive if new licences are granted to monopoly houses and that in any case entry to the industry should be allowed to these like themselves who had been in the line for sime time.

3·08 According to the IDL, total explosives capacity sanctioned by the Government other than IOL's (LOX) is 133,000 tonnes as under :—

Slurry Explosives

IDL Chemicals Ltd.	30,000 tonnes
FCI (Unit I)	15,000 ,,
(Unit II)	15,000 ,,
IBP (5,000 tonnes each at 4 different locations)	20,000 ,,
FCI (ANFO Explosives)	9,000 ,,
	89,000 ,,
NG Based explosives :	
IEL	28,000 tonnes
Narendra Explosives	10,000 ,,
Coal India/Defence	6,000 ,,
	44,000 tonnes
Total explosives capacity other than IOL's (LOX)	133,000 tonnes.

This according to the IDL, was sufficient to meet the projected demand of 83,000 tonnes by 1978-79. It is pointed out that the estimated demand of 83,000 tonnes is itself an over-estimate because the coal target for 1976-77 has been reduced from 111 million tonnes to 108 million tonnes. It was also claimed that it would be premature to consider issue of fresh licences for the requirements of Sixth Plan and beyond and that explosives being a capital-intesive industry, it would be better to allow the existing units both in private and public sectors to expand their capacities rather than encourage new entrepreneurs in the field. It was also contended that in the near future there would have been considerable improvement in the slurry technology through efforts being made by IDL and others which would enable a higher level of production with only marginal investments. It was also emphasised that in addition to the technology already available in the country and with IDL and with the coming of foreign technology through IBP and FCI, it should not be necessary to import further technology into this field. It was submitted that over-licensing would cause considerable hardship to the newcomers, particularly in the private sector who would be dependant for funds on the financial institutions and for raw material and finished explosives on public sector undertakings. Over-licensing would also being uncertainty and doubts in the minds of existing units in regard to their expansion plans.

3·09 The Commission sent a letter to India Oxygen Ltd. to collect information regarding their production of Liquid oxygen Gas (LOX) used as an explosives In response to this IOL supplied that information and also stated that the use of liquid oxygen explosives has proved to be very suitable and economical in open cast mining and no foreign collaboration or imported raw material was required for the same. Current cartridging manufacturing capacity of IOL was 3,000 tonnes of explosives, but the production was only 1,455 tonnes for the year 1974-75 and 1,558 tonnes for the year 1975-76. According to their estimates, production of liquid oxygen would be 2,500 tonnes by 1978-79 and 7,000 tonnes by 1983-84. According to them, the capacity for the manufacture of explosives of the present producers and those to whom licences or letters of intent were issued was sufficient to meet the requirements of the country for the forseeable future.

CHAPTER IV

ANALYSIS OF THE PROPOSAL

4·01 The proposal has to be examined first from the point of view of its feasibility in the context of the industry as a whole and next from the point of view of its inherent merits and demerits. In the context of the industry as a whole, the first and the main aspect to be examined is about the existing and projected demands for the industrial explosives and the available and anticipated sources of their supply.

4·02 Estimates of likely demand by the end of 1978-79 have been recently prepared and reviewed by the members of the Explosives Committee headed by the Coal Controller, Government of India. The details are given in Table 4 to Annexure 5(A). The demand for the explosives for mineral production has been assessed by this Committee on the basis of the projection of increase in production made in the Plan documents. The assessment of the requirements of other sectors which include the Civil Engineering Sector and Border Road Organistation has been given as indicated by the representatives of the explosives manufacturers. On the targetted production of coal and lignite of 141 million tonnes by 1978-79, the requirements of explosives have been projected at 46,600 tonnes. The blasting ratio, *i.e.*, the ratio between quantity of explosives required and likely coal production, implicit on this estimate is about 330 tonnes of explosives per million tonnes of coal production. The requirement of explosives for mining other than coal has been put at 24,400 tonnes by this Committee, this adding to a total requirement of explosives of 71,000 tonnes for mining purposes. It appeprs that the Committee made no attempt to estimate the requirements of other Sectors and accepted the figure of 20,000 tonnes as given by the manufacturers representatives as estimate of requirements of other sectors. The total requirement was thus put at 91,000 tonnes for 1978-79.

4·03 The Guidelines for Industry, 1976-77, gives a demand estimate of 85,000 tonnes of explosives by 1978-79. The capacity required for producing this quantity has been put at 100,000 tonnes assuming capacity utilisation at 85%. The DGTD had indicated a demand estimate of 84,000 tonnes by 1978-1979. Coal India Ltd. have indicated that the demand for explosives in 1974-75 was 42,000 tonnes of which coal mining industry was expected to use about 20,000 tonnes. According to CIL, demand by 1978-79 (including requirements of Border Roads) may be anticipated at 93,000 tonnes, of which the coal mining industry will account for 50%. The Planning Commission has indicated that while no specific targets have been laid down in the Draft Fifth Plan for commercial explosives, the requirements were assessed by various agencies from time to time. The Planning Commission estimated in May, 1975, that the likely requirements in 1978-79 may be of the order of 80,000 tonnes. In the estimates given by the Department of Coal (See Annexure 5(a), Table 5) however, the estimate of the Planning Commission is put at 78,000 as against about 91,000 estimated by the Department of Coal.

4·04 IBP has put its estimate at 84,693 tonnes as per Annexure 5(a) Table 6. The IDL Chemicals estimated it at 79,500 tonnes as per Annexure 5(a), Table 7 and Narendra Explosives put it at 83,000 tonnes as per Annexure 5(a), Table 8. The IEL has projected the demand for explosives by 1978-79 at 86,100 tonnes as given below.

TABLE 9

Estimates of Demand For Explosives by 1978-79 as Prepared by IEL

Industries	*Requirements*
Mining Sector :	*Tonnes*
Coal/Lignite	46,200
Iron/Manganes	8,300
Lime/Dolomite	5,500
Copper	4,000
Other minerals	3,000
Total mining	67,000
Non-mining Sector :	
DGBR	2,000
Roads and Railways	3,000
G. Hydel Projects	5,000
Minor Irrigation & Well sinking	8,500
Harbour projects	600
Total non-mining	19,100
Grand Total	86,100

(*Source.*—Indian Explosive Ltd.)

4·05 The demand for coal/lignite mining has been estimated by IEL on the basis of a target of 135 million tonnes of coal production in 1978-79. The blasting ratio used for estimating the requirements of coal mining has been assumed to increase from 225 tonnes in 1974 to 327 by 1978-79. It has been stated that this ratio increased from 154·2 tonnes in 1968 to 225 tonnes in 1974. IEL has indicated that the trend of rising balsting ratio during this period is likely to accelerate further during the Fifth Five Year Plan period as pick mining is likely to be completely replaced by blasting significant increases are likely in the use of solid blasting techniques, and larger increases are expected in production from open cast mining as compared to underground mining. Open cast mining requires more explosives per tonne of coal produced than underground mining. For iron and manganese ore mining, IEL has prepared its estimate on the assumption of likely production of 62 million tonnes and a blasting ratio of 134 (the ratio observed during 1974 was 119). For copper, requirements of 4,000 tonnes of explosives by 1978-79 have been estimated on the assumptions of a production target of 5 million tonnes of copper ore, and the requirement of explosives at 800 tonnes per million tonnes of copper production.

4·06 M/s. Chowgule's estimate of demand (as will be seen from the Table B reproduced in Annexure 4) was 91,000 tonnes in the year 1978-79 and 137,000 tonnes in the year 1983-84. The estimates of WIMCO were 65,000 tonnes for 1978-79 and 1,10,000 for 1983-84.

4·07 From the data given above, it will be seen that there is not much difference of opinion regarding the estimates of demand, specially for the next few years. For the mining sector, the estimate of the Department of Coal in the highest at about 71,000 tonnes. The Planning Commission's estimate for the mining sector is 58,000 tonnes. Indo-Burma Petroleum, a public sector corporation, claims to have made a careful estimate of demand and has arrived at a figure of 64,700 tonnes. IEL has estimated the demand at 67,000 tonnes. Chowgules have not estimated the demand for mining sector separately although they have elaborate details regarding mining production, actual for the past and estimated for the future. One can, therefore, take it that the demand from the mining sector by 1978-79 is not likely to exceed 65,000 tonnes per annum. Taking into account the fact that at present due to accumulation of coal stocks the mines are facing difficulties, it is not unlikely that the target of 140 million tonnes of coal for 1978-79 may have to be revised downwards. That of course would depend to some extent on the general tempo of economic and industrial growth. In any case, it does not appear that the demand for explosives from the mining sector will exceed 56,000 tonnes by 1978-79.

4·08 As regards the non-mining sector, the basis for estimate appears to be much less firm than that for the mining sector. In a number of estimates, a figure of 20,000 tonnes per annum has been assumed for the non-mining sector without any detailed break up. IEL has given a detailed breakup. In their estimate, the requirement of the Directorate General of Boarder Roads (DGBR) by 1978-79 is put at 2,000 tonnes. While according to the DGBR itself, the requirement of explosives would be as follows :—

TABLE 10

Planned Requirements of Explosives by DGBR

	Tonnes
1975-76 . . .	1550
1976-77 . . .	1650
1977-78 . . .	1550
1978-79 . . .	1050
1979-80 . . .	950

Thus the requirement in 1978-79 is shown only as 1050 tonnes as against 2,000 tonnes estimated by IEL. Taking into account the fact that other estimates are placed at about 20,000 tonnes and IEL estimate is about 19,000 tonnes, and also the fact that for the DGBR, IELS' estimate is larger by about 1,000 tonnes, it may not be inappropriate to conclude that the demand from the non-mining sector by 1978-79 is not likely to exceed 15,000 tonnes. Therefore the total demand by 1978-79 is likely to be not more than 80,000 tonnes. Assuming 80% utilisation of capacity as against 85% estimated by the DGTD, it may be safe to say that a licensed and installed capacity of 100,000 tonnes would be necessary in 1978-79 in order to satisfy the expected demand by that year.

4·09 As this enquiry is being held in 1976 and the Government decisions on a number of applications are likely to be made only by about or even after August, 1976, the expected demand for the years following 1978-79 is also of much importance in this connection. As pointed out earlier, Chowgules have estimated the demand at 137,000 tonnes for 1983-84. As per annexure 4, the estimates are based on 10% growth in mining and further increase on account of specific proposals, IEL has estimated the demand for explosives in 1983-84 as follows :

Mining	109,000 tonnes
Non-mining	31,000 tonnes
Total	140,000 tonnes

In arriving at this estimate, IEL have stated that they have taken into account Government production target for various minerals set by various Government agencies and they have made certain assumption about the blasting ratio.. The estimate for non-mining sector is based on projections of past trends, plans given in various documents for Government projects and discussions with various authorities. According to the Department of Coal, tentative estimates for 1983-84 prepared by different agencies are as follows :

Planning Commission	128,921 tonnes
IBP	138,625 tonnes
Department of Coal	147,865 tonnes

The details about how these projections have been worked out are not available. It may, however, be assumed that the demand in 1983-84 is not likely to exceed 140,000 tonnes per year of blasting explosives. On the basis of 80% utilisation of capacity, the licensed and installed capacity by 1983-84 would, therefore, have to be 1,75,000 tonnes per annum of blasting explosives. The 'Guide lines for Industries 1976-77' issued by the Department of Industrial Department, however, state that it would be "desirable to aim for an installed capacity of 200,000 tonnes by 1985". It was explained by a representative of Government at the Public Hearing that certain assumptions are made regarding the percentage of licences that do not fructify. But it appears that an installed capacity of 200,000 tonnes would be excessive or 1983-84. What would be desirable is a licensed capacity of 175,000 tonnes which can reasonably by expected to be installed and operated by that year.

The Prospects for Supply

4·10 As against the anticipated demand, we have to take into account the anticipated supplies not only for 1978-79 but also for 1983-84. As already indicated earlier, the present production of explosives is controlled by two manufacturers namely, IEL and IDL Chemicals. The licensed and installed capacity of these two is given in Table. 11.

TABLE 11

Existing Licensed and Installed Capacity

Name	Licensed capacity (in tonnes)	Installed capacity (in tonnes)
1. M/s. Indian Explosives Ltd.	36,000	36,000
2. M/s. IDL Chemicals	22,500	15,000*
	58,500	51,000

*This excludes the capacity of the Hyderabad unit—7500 tonnes—which is said to have commenced trial production recently.

(*Source*.—DGTD)

Our analysis about the actual potentialities of the existing plant of IEL, as borne out in our inquiry in IEL's case, suggests that they have basically a capacity to produce 42/43000 tonnes per annum of explosives without any significant addition to plant or machinery. It has already been noted that IEL is already producing explosives of the order of about 35,000 tonnes in 1975 while IDL attained a production level of 9750 tonnes in 1975. IDL Chemicals have stated that they could have produced more if there was demand; but with inadequate demand and the increasing output of the already well-established producer, *viz.*, IEL, they have not been able to utilise their installed capacity fully, In addition to these two established producers of commercial blasting explosives, there are two other sources of materials which satisfy the requirements of explosives. These are : (1) Indian Oxygen Ltd. and (2) Fertiliser Corporation of India. Indian Oxygen Ltd. supplies liquid oxygen explosives (LOX). The cartridge for it is manufactured in IOL's factory at Ranchi, while liquid oxygen is obtained from t various air separation plants near mining areas. No industrial licence has been obtained for the manufacture of cartridges as, because of the small employment in the factory, the unit is exempt under the I (D & R) Act. IOL have stated that their current cartridge manufacturing capacity is equivalent to 3,000 tonnes of explosives per annum. Their actual output in terms of tonnes of explosives has been as given below :

TABLE 12

Production of Liquid Oxygen Gas used as an Explosive

Year ended	*Quantity of LOX (tonnes of explosives)*
31-3-1972	1,821
31-3-1973	1,556
31-3-1974	1,401
31-3-1975	1,455
31-3-1976	1,558

(*Source.*—Indian Oxygen Ltd.)

IOL have stated that a number of mining organisations are using LOX for open cast mines. These include Central Coal Fields, a subsidiary of Coal India, National Mineral Development Corporation, Tata Iron and Steel, Indian Iron and Steel, Hindustan Steel, Neyveli Lignite and Orissa Mining Corporation. It has been explained that there is currently some shortage of liquid oxygen in the mining area which has prevented further use of LOX as explosives.

4·11 It has been mentioned earlier that one of the developments in the period after the Second World War in the field of explosives was the use of ammonium nitrate fuel oil (ANFO). This is a comparatively simple and cheap explosive, but it has certain limitations on its use. The Fertliser Corporation of India, which produces ammonium nitrate of the explosives grade, has been marketing it for use as explosives in combination with fuel oil. Its capacity for the production of ammonium nitrate is 9,000 tonnes and FCI has stated that it is already marketing this product to the extent of 6,000 tonnes. They are expecting that demand for the entire quantity of 9,000 tonnes will develop in the near future. The representatives of FCI have further explained that ANFO, being a cheap substitute for traditional explosives, its cost is about 60%, its use needs to be popularised In the USA, according to them, quite a substantial proportion of explosives requirements are met by the use of ANFO. Efforts are going on all over the world to streamline the use of ANFO so as to reduce the limitations on its use. The FCI intends to undertake further efforts to popularise the use of ANFO as this will save national resources with the substitution of a costilier by a cheaper material. It is expected that the use of ANFO will increase to about 15/17000 tonnes by 1978-79.

4·12 The status of the schemes, which have already been approved by the Government or are under consideration for the production of Industrial Explosives (as indicated by the DGTD), is given below : (see Table 13)

TABLE 13

Approved Schemes for the Manufacture of Explosives

Name	Location	Approved Capacity	Status of implementation
1	2	3	4
1. M/s. IDL* Chemicals	Hyderabad, Andhra Pradesh	7,500 tonnes	Slurry Exlposives Land acquired, building constructed. Order for capital goods placed. As no imported capital goods are required and technology is available with the applicant production is expected by April, 1976.
2. M/s. IDL Chemicals, Rourkela	Rourkela, Orissa	7,500 tonnes	Slurry Explosives Project is to be implemented after the Hyderabad scheme. Production expected during early 1978.
3. M/s. Narendra Explosives	Lalitpur, U.P.	10,000 tonnes	Conventional Nitro Glycerine based explosives. CG Cleared foreign collaboration cleared. The project however is not making satisfactory progress and is not expected to materialise before 1978.
4. M/s. Coal Mining Authority/Dir. Gen. of Ordinance Factories, Public Sector.	Bhandara, M.P.	5,000 Tonnes	Conventional Nitro Glycerine based explosives. The Public investment board has cleared this project in July, 1975, for an investment of Rs. 6·5 crores. The project is planned to be completed in 36 months. It is therefore likely to go into production in middle 1978.

1	2	3	4
5. Indo Burmah Petroleum Company, New Delhi.	Korba, M.P.	18,000 tonnes	Slurry Explosives. The applicant has applied for foreign collaboration.
6. Indian Explosives Ltd., Gomia (S.E.).	Gomia, Bihar	7,000	Conventional NG based explosives. The applicant is currently producing about 34,000 tonnes of explosives against their licensed capacity of 28,000 tonnes. Their proposal for regularisation of production has been recommended by DGTD to the Licensing Committee. Decision is awaited.
7. Indian Explosives Ltd., Gomia (new unit).	Somewhere in Western India or Central India	15,000 tonnes	Type of explosive not yet decided. The case processed and recommended to L.C./MRTP Final decision awaited.

*This is already indicated in the licensed capacity given at the beginning of this section.

£Already approved now.

(*Source*.—DGTD)

IDL Chemicals

4·13 It is necessary for us to briefly review the prospects of these proposals materialising As regards the two schemes of IDL Chemicals, it appears that they will not present much of a problem. It is understood that the explosives plant at Hyderabad is already erected, trial production has already been started and will be inaugurated shortly and some production may be established during the current year itself. It may not, therefore be inappropriate to assume that the plant will be capable of coming into full production in 1977-78. As regards their proposal to add a capacity of 7,500 tonnes to their present explosives plant at Rourkela, they have indicated that they are now finalising a continuous process of operation in that plant. The development is in advanced stage and it is expected by them that production could be stepped up within a short time. In any case, therefore, it appears likely that this scheme would also materialise by 1978 so that additional capacities to the extent of 15,000 tonnes per annum will be comming into operation by 1978.

CIL—DGOF

4·14 A plant for the production of NG based explosives at Bhandra is being set up jointly by the Coal India Ltd. and the Directorate General of Ordinance Factories (DGOF). The Commission has been assured that the project is steadily progressing. It is likely to go into production by mid-1978. It has been further pointed out that while the stable capacity of the plant would be 5,000 tonnes per annum, the plant would be capable of producing 7,500 tonnes though, from the point of view of ensuring standby capacity, the concerned authorities would rather avoid doing so. Such additional production can be established by 1980-81. A further point made by the DGOF is that additional capacity for nitroglycerine was being created and such surplus would be available by 1981-82, in quantities adequate for the production of 6,000 tonnes of explosives per annum. From the existing facilities with the DGOF, it is also possible to make available nitroglycerine for the production of 6,000 tonnes of explosives per annum. At the moment, with transport difficulties, no existing plant can use this material. The question about how these supplies of nitroglycerine can be used, for additional production of explosives has not yet been decided by the Government. There would be adequate raw materials available for the production of about 12,000 tonnes per annum of explosives based on nitroglycerine.

Narendra Explosives

4·15 As regards Narendra Explosives, if may be mentioned that they were granted a letter of intent in May, 1972. However, the Government informed them in June, 1972 that they should not take any further action on the letter of intent as the Government was reconsidering the whole position with a view to confining the future development of explosives to the public secotor. It was only in June, 1973, that they were again informed that they could proceed with their project. Industrial licence was granted to them in February, 1975. Narendra Explosives have informed the Commission that they have already been given land measuring 1,000 acres for the project by the State Government in the industrially backward area of Lalitpur District in Uttar Pradesh. In order to meet the immediate requirements of the country as well as to gain experience, they have started a pilot project at Dehradun and this has been approved by the Government. Orders have been placed for this pilot plant and this is expected to go into production in 1976. In the meanwhile, some manufacture of cap insensitive explosives has been taken up and samples of these have been got approved from the Directorate of Explosives. As regards the main project, they have stated that they have secured foreign collaboration with a reputed European producer of explosives J. Meissner of West

Germany and the terms of collaboration have already been approved by the Government. The Government has also already approved the capital goods import for the proposed plant. The only aspect that appears to be still under examination is regarding the financial support to be extended by public financial institutions. Narendra Explosives expected that this aspect would be cleared shortly. Their fixpectations that once finance becomes available from the financial institutions, with all the other steps already taken, it may not take more than 14 month for them to complete the project and commence operation. Though this is a medium—almost small—unit, the entrepreneurs have experience of this activity. Narendra and Company, an associate unit, is already manufacturing gun powder and saftey fuse since 1964. Doon Udyog Ltd., another associate unit, has been a distributor of explosives and has shortage magazine arrangments in the Himachal Pradesh, Uttar Pradesh and Rajasthan. The management appears confident that, if insuperable difficulties and hurdles do not come in their way, they will be able to establish the project in a short time. It appears to us that most of the formalities regarding the development of the project having been completed and necessary Government approvals obtained, the project has a good propspect of materialising. We do however appreciate that it may take some time before the financial institutions take a decision on providing financial support and therefore, the proposal may not materialise before 1978.

IBP

4·16 Regarding the letter of intent given to Madhya Pradesh Audyogik Vikas Nigam, this has now been taken up by Indo-Burma Petroleym Company Ltd. (IBP), a public sector undertaking. A letter of intent for an aggregate capacity of 20,000 tonnes of explosives per year has been issued by the Government of India to IBP in November, 1975. The proposal is to have four plants, all located in Madhya Pradesh—two at Korba, one at Katni and one at Itarsi. Sites at all the three locations have been surveyed and identified and clearance obtained for land acquisition. The Government of India has already approved the investment proposal in respect of two of the four plants, while the investment for the remaining two plants has been approved in principle. A foreign collaboration agreement with a reputed American Company—IRECO—has been concluded and this also has been approved by the Government. On the basis of this collaboration, it is expected that slurry explosives, both of permitted and non-permitted varieties, would be produced in a composition as required by the market. IBP's expectation is to put up one plant a year and thus, with the first plant being initiated in 1976, all the four plants will be completed by 1980. Their expectations is that commercial production will commence within one year from the start of work on a plant and full capacity will be reached within a few months thereafter. On this basis, IBP expectes to be able to install a capacity of 5,000 tonnes per annum by the end of 1977 and add an equal capacity every year till the total capacity of 20,000 tonnes is reached. In support of this schedule, IBP has pointed out that their collaborators have put up a plant in Japan which started full production within one year from the time collaboration arrangements were concluded. IBP's claim is that full production can be establsihed in a few months after initiating commercial production.

Fertiliser Corporation

4·17 It appears that following a decision taken by Government that further capacity for the production of explosives should be created in the public sector to the extent possible, FCI was asked to explore the possibility of setting up such capacity. As a result of these explorations, FCI has prepared a proposal for setting up an effective production capacity of 15,000 tonnes of slurry explosives based on ammonium nitrate, and a capacity of 20,000 tonnes is proposed to be installed to attain this production. A special point in favour of FCI's proposal is that they have considerable surplus capacity for the production, of ammonium nitrate, a basic material or the production of slurry explosives and that, as a result of new developments in the fertiliser industry, this capacity will become surplus in the near future. Thus, setting up for the production of slurry explosives capacity so as to use this surplus ammonium nitrate would help ensure the economical use of a plant that would otherwise be redundant. FCI, with its long background in the production of heavy chemicals, has claimed that it has got the necessary technical capability to take up this task and complete it within a short time. It is the claim of FCI that once all the Government's clearances are available, it will take them two years to set up a plant and bring it into operation.

4·18 One difficulty in the way of FCI appears to be the failure to reach agreement with a suitable foreign collaborator. Earlier, the idea appers to have been that IRECO would provide technical collaboration both to IBP and FCI if the latter wanted it. But FCI was attempting to secure technical collaboration with DU point. This proposal did not materialise appaarently because of differences regarding the terms on which other intending explosive producers—especially in the private sector—could obtain the technological information given by Du Pond FCI. The result is that Du Pont has decided to collaborate with Chowgule's-it the latter obtain permission to set up an explosive manufacturing unit and FCI is left without a technical collaboration satisfactory to them. Their project appears to have, therefore, received a certain set back. Their representative informed the Commission that for the time being FCI would concentrate on developing the market for ANFO as an explosives.

4·19 In regard to IEL's proposal for expansion, by our Report dated 30th July, 1976. We have recommended that the proposal should be rejected.

Balance of Demand and Supply

4·20 It will thus be seen that the existing licensed and installed capacity is 70,500 tonnes per annum (36,000 IEL, 22,500 IDL, 9,000 FCI and 3,000 IOL). This leaves a gap of about 30,000 tonnes per annum for additional capacity to be licensed and brought into existence thus of creating a capacity of 100,000 tonnes so as to satisfy the expected demand of not more than 80,000 tonnes by 1978-79 on the basis of 80% utilisation of capacity. We have already seen that the capacity already approved by Government, the proposals regarding which have made significant headway, amounts to 42,500 tonnes per annum. This includes—

IDL · · · · ·	7,500 tonnes
IBP · · · · ·	20,000 tonnes
CIL/DGOF · · ·	5,000 tonnes
Narendra · · · ·	10,000 tonnes
	42,500 tonnes

From the information given above, it would not be wrong to conlude that the capacity proposed to be installed by IDL Chemicals and DGOF/CIL, will fully come into existence by 1978-79. It would also be correct to assume that IBP would be able to put up a capacity of at least 10,000 tonnes if not of 15/20,000 tonnes by 1978-79. Regarding the proposal of Narendra Explosives, while it has made considerable headway, its progress depends upon finance being made available by public financial institutions. It appears to us that one aspect that the institutions may well look at critically would be whether there would be adequate demand for the proposal to be financially viable. It will have, therefore to be assumed that the approval by financial institutions of the proposal of Narendra Explosives would to some extent depend upon whether many other proposals, and specailly the proposal by IEL, which is presently dominant in the industry, is approved or not. In any case, therefore, a capacity of at least 22,500 tonnes is most likely to be brought into existence by 1978-79 on the basis of the proposals already approved. If the market prospects for the proposal of Narendra Explosives remain good, a further 10,000 tonnes capacity will be brought into existence. In addition to this, the FCI expects to market an additional 10,000 tonnes of ammonium Nitrate for use in the form of ANFO. This analysis suggests that there is not much necessity to bring about any major addition to licensed capacity for the purpose of satisfying the expected demand by 1978-79.

4·21 It could, however, be said that 1978-79 is not far away and, with the importance that coal is being given in the future development of the country and therefore the importance of the production of explosives, it is necessary that steps should be taken from now for meeting the demand expected to airse in the Sixth Five-Year Plan period. We have already seen that the demand expected by the end of the Sixth-Five-Year Plan would amount to 140,000 tonnes per annum and therefore a capacity for 175,000 tonnes per annum will have to be created by that time. When we consider the Sixth Five-Year Plan period, we may assume that all the capacity approved upto now except perhaps that of Narendra Explosives would definitely come into operation. Narendra Explosives may also come into operation, if there is an adequate market for explosives. Thus a total capacity of 110,000 tonnes per annum (plus perhaps 10,000 tonnes of ANFO) would be in existence in the early part of the Sixth Plan period. There would, thus, be scope in the latter half of that period for an additional capacity of about 55/65,000 tonnes per annum.

4·22 This being the state of anticipated demand and supply, it is necessary to envisage the structure of explosives Industry in the coming years indicated by the scale of preferences dictated by considerations set out in section 28 of MRTP Act. That section enjoins on the Commission to take into account all matters which appear in the particular circumstances to be relevant and also, the general economic position of the country. Against this background certain objectives are to be kept in view and the objectives relevant to the proposal under examination are, achievement of the production, supply and distribution by most efficient and economical means, of goods of such types and qualities, in such volume and such prices as will best meet the requirements of the defence of India, and home and overseas markets; the best use and distribution of men, materials and industrial capacity; technical and technological imporvements in industry and expansion of existing market and opening of the new markets; encouragement of new enterprises as a countervailing force to the concentration of economic power to the common detriment; regulation of the control of the material resources of the community to subserve the common good; and reduction of disparties in the development between different regions and more especially in relation to areas which have remained markedly backward.

4·23 We have given considerable thought to all these aspects and drawn an outline of the explosives industry in the coming years as it should be according to the criteria laid down under section 28. Accordingly, we have recommended in our report on the proposal of IEL, that there is no more scope for the expansion of the Indian Explosives Ltd. in the explosive industry either by way of expansion of the present undertaking or by setting up of a new undertaking apart from the existing undertaking. They are already producing 36,000 tonnes of NC based explosives against the sanctioned capacity of 28,000 tonnes by utilising what is called the stand by equipment. The total production was between 45 and 46,000 tonnes. Their share of the market was, therefore, more than 75%. Existence of such a large producer in the market automatically scares away intending new enterpreneurs and makes it difficult for newcomers already in business to make any headway. Even assuming that their market behaviour was not questionable, it will not be desirable to let any single producer have such a large share of the market if the economic health of the country is to be preserved. This was particularly so in case of a commodity like explosives which is of critical importance for the development of economy as it is required as an essential input for the development of mining, roads, irrigation etc. In respect of such a commodity, the community should not be in such a position that it has no alternative but to allow the existing producer to expand at the perial of disrupting the whole programme of production in respect of important sectors of the economy. The fact that IEL was a subsidiary of a joint multinational foreign company, further underlines the need for calling a halt to the expansion of its undertaking because it involves remittance of money to foreign countries, which if it cannot be avoided should at least be held at the level which is inevitable. The history of IEL over the last 20 years clearly shows that they had been first in the field by reason of the fact that they were originally the channels of import of explosives that it had become necessary to allow them to establish as manufacturers to meet the growing needs of the community in a vital material and that in the absence of an alternative source of supply, the Government was quite helpless in stalling its growth. The difficulties experienced by the new unit in the industry (i.e., IDL) even though backed by foreign know-how, also suggested that even without making any overt efforts, the existing large producer had certain inherent advantages which made it difficult for the newcomers to offer equal competition. The traditional consumer preferences for familiar items of consumption reinforced by a craze for commodities with foreign connections make it difficult for the new-comers to penetrate into the market and give an advantage of no uncertain weight to the existing large-scale producer. This position can be changed only if a halt is called to the growth of a multi-national giant in the Industry and the field is left open for free and fair competition to other producers whether in the public or in the private sector. In the short run, such a course will involе some sacrifices on the part of the community. The prices of the commodities produced by the new units may not be as attractive as the prices of the commodities produced by the existing producer. There may also be disparity in quality of the products. There may be delays in bringing the production to the required scheduled but there can be no doubt about the long run advantages to the community of having an industry in which no producer has dominant position. The inherent tendency to exploit the consumer will be checked, overall production will increase and there will be competition among technologies of different producers which will give incentive to innovation and improvement in the technique of production all-round. It is for these reasons that we have recommended that there should be no expansion of the undertaking of the IEL.

4.24 That brings us to the question whether public sector should have a dominant share in the Industry. It was suggested that in the industry, large share of the raw materials is supplied by the public sector. It is also suggested that with the State takeover of the coal mines, consumption of the explosives by the public sector project is also on a large scale. These two advantages would no doubt weigh in favour of the public sector but they are not enough by themselves. A public sector undertaking supplying the raw material can undertake to produce the explosives only if it can produce them as cheaply as the other producers and if they can market them as profitably as the other producers. Similarly, a public sector undertaking using the explosives can go in for their manufacture only is by that process it can secure explosives at a cheaper rate than before. But the public sector undertakings in question will no doubt start with an advantage and with a proper technological support can realise the objectives set out. Security of the market and/or supply of raw material are advantages which will definitely avail the producer in competition and it is for these reasons that we would like the public sector undertakings to enter this industry in a considerable measure. We cannot, however, take into account projects which are not even in an embryonic stage. While assessing the production capacity of the immediate future years, we can take into account only those projects whether in the public sector or private sector which on an objective analysis of circumstances are likely to reach the take-off stage in the near future and contribute to the production in the first half of the Sixth Plan period. It is for these reasons that while taking into account the projects of IBP, and DGOF, we are unable to make allowance for the project of FCI except the one relating to ANFO. We are anxious to ensure that adequate supplies of this critical commodity are available so that the vital sector of the economy is not affected for want of the same. On the production of coal will depend the future supplies of much needed energy. On the production of iron ore depends a major source of our foreign exchange. We would therefore like to err. if at all, on the side of generous estimate while planning for production of explosives which are a critical input for mining of coal and iron. This is particularly so because public sector undertakings in this vital sector of economy are themselves interested in securing supplies of this commodity in the coming future. It is, therefore, not without significance that Coal India Ltd. and DGTD have supported the proposal under examination. The public sector projects, which have already reached a fairly advanced stage, are in no danger of being stifled if other new units are allowed to go into the industry, the demand situation being what it is. But we are unable to stop other units from entering industry where other public sector undertakings are we are unable to stop other units from entering industry where other public sector undertakings not maturing. There is, therefore, in our view, room for Chowgules' project, provided it is feasible on its inherent merits.

4·25 Coming to the merits of the proposal, in the first place, Chowgules unlike the two existing producers are a completely Indian house. On the other hand, unlike Narendra Explosives Ltd. whose project is also taking shape, they are a large house. Their proposal, however, envisages promotion of a new compnay in which they and their interconnected companies will have only 40% share in the quity. The balance will be subscribed by financial institutions and the genral public. The loans which are proposed to be taken from financial institutions will also be subject to the convertibility clause and the equity debt ratio will also be maintained at 1: 2 or even at a stronger rate. The ownership of the new company will, therefore, be broad based and the dange of concentration of economic power will be reduced to a minimum and there will be hardly an possibility of any common detriment by reason of the composition of the ownership of the new company.

4·26 The record of Chowgules in the activities they have so far undertaken is also impressive. Whether in the mining of iron ore or in the pelletization of the ore or the transport and shore handling of the ore or ship building, their performance has been creditable. As the Annexure 3 would show they have been responsible for considerable exports in the past and their commitments for the future in regard to exports are also considerable. Although the ownership of the existing business is confined to the members of the Chowgule family, the management is largely professionalised. They have got very useful and effective contracts with foreign parties, particularly in Japan and United States of America and they have undertaken a very large project in the joint sector for pelletization of iron ore. They have a very well established R & D Division and the catalogue of the achievements of that Division given at paragraph 1·06 would clearly suggest that R& D has been an effective instrument with this organization and that it is capable of being turned to good account for the proposed project also. The proposed project is somewhat integrally connected with their Iron Ore Mining business, because they have necessarily to use explosives in their mines and although quantitatively the explosives for captive consumption may not have been large, the fact remained that they do have definite ideas about application of the explosives, at least in the field of iron ore mining. They are also aware of the difficulties in getting explosives from long distances viz. excessive delay in supplies, shortage of ordered type of explosives resulting in supplies of available type and non-availability of certain type of explosives. There is some merit in their claim that by reason of their experience in iron-ore mining and the use of explosives therein, they will be in a position to disseminate their expertise regarding economic usage of explosives especially for open cast mining.

4·27 The location of the proposed plant in the State of Karnataka at one of the sites near or in the mine belt has also certain inherent advantages. Firstly, the plant will be in the heart of the mining area where the demand of explosives will be considerable in the foreseeable future. Chowgules have given the estimate of demand in this area at 20,000 tonnes per annum and they have given the basis of their estimate (Table C, Annexure 4). Even making allowance for the fact that the estimate may be on a somewhat generous scale and also making allowance for the fact that the Hyderabad Unit of IDL with a capacity of 7500 tonnes will not be very far from this belt, there can be no doubt that there will be sizeable demand for explovives from the iron ore mining areas of Karnataka and Goa which would be conveniently met from the proposed site. The advantage of having the source of explosives near the mines cannot be overemphasised. This will eliminate a large part of the cost of transport. Both according to Chowgules and WIMCO the savings would be near about Rs. 400/- per ton as compared to the expenditure incurred in transporting the explosives from the existing units.

4·28 The hazards of accidents in transport will also be correspondingly less, although these hazards will considerably be reduced in any case virtue of the fact that the explosives will be slurry explosives. There will also be considerable reduction in the number of magazines necessary for storing of explosives, because the supply of explosives will be more in conformity with the actual demands of the consumers. This will also make the supply of the explosives according to the demands of the customers easier and particularly the arrangement for bulk supply or supply directly at the mine head would be facilitated. There will be no need also for the consumers to have large inventories of explosives, because they will be able to get explosives that they want at a short notice according to the requirements. According to Chowgules the period of inventory will be reduced from three months to one month or even less and this according to their calculations would eliminate the inventory expenses relating to 2000 tonnes.

4·29 The technology proposed by Chowgules is also quite suitable to the requirements of the situation. The properties of explosives which are of particular interest to the consumers are :—

"(1) Strength: This is a measure of the amount of energy released by an explosive on detonation and hence its ability to do useful work. The weight-strength denotes the strength of any weight of explosive compared with the same weight for blasting gelatine, and bulk-strength denotes the strength compared with an equal volume of blasting gelatine. Blasting is taken as the standard because it is the most powerful commercial explosive with characteristics that are well known.

(2) Velocity of Detonation: This is the rate at which the detonation wave passes through a column of explosives and is of considerable importance since the shock energy of detonation increases rapidly with this velocity. The shock energy does most of the work when the explosive is used unconfined, e.g. in plaster shooting.

(3) Density : The density is important when selecting an explosive for a particular use. With a high density explosive the energy of the shot is concentrated—a desirable feature in tunnelling and mining operations in hard ground. On the other hand, when the output of lump coal from mine is important, it is advisible to use a low density explosive, which distribute the energy along the shothole.

(4) Water Resistance: Explosives differ widely in resistance to water and moisture penetration. Some explosives deteriorate rapidly under wet conditions, but others are designed to withstand water for long periods. When blasting is to be done under wet conditions, a gelatinous explosive is preferable.

(5) Sensitivity : An explosive is required to be insensitive to normal handling, shock and friction, but must remain sufficiently sensitive to be satisfactorily detonated, and capable of propagating satisfactorily,cartridge to cartridge and even over shot gaps such as may occur in practice.

(6) Fume characteristics : Explosives, which are to be used where ventilation is restricted must produce a minimum of harmful gases in the products of detonation."*

4·30 In the light of these requirements, the recent trend all over the world is in favour of slurry explosives. Slurry explosives are based on Ammonium Nitrate. Till recently NG based explosives were the only variety which were being used in the Indian mines. It is only in the recent past that slurry explosives have become available in the country and their use has been approved by the Director General of Mines Safety for certain applications. Slurry explosives are broadly used in open cast mining of coal and other ores. Since the recent technology for mining is based on open cast mining, the use of slurry explosives in the country is likely to increase in future to a great extent. Slurry explosives are gradually being permitted in India in underground and gassy coal mines also.

4·31 The manufacture of slurry explosives is essentially a mechanical function. Since none of the components of the slurries is itself an explosive, it is relatively safe to handle while manufacturing, transporting and using. The slurry explosives can also be cap-in-sensitive, can be packed, easily and need not be kept in cartridge or magazines. They can be mechanically loaded into bore-holes which result into cost saving. They are more useful for large diameter explosions but even in respect of small diameter requirements, their use is being popularised. Since no major chemical process is involved in their manufacture, the capital investment in the case of Slurry explosive, is comparatively less as compared to NG based explosives.

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*"Explosives Year Book, 1976", by Indian Explosives Ltd.

4·32 On the other hand, shelf-life of slurry explosives is about six months only though with technological advancement it might be extended to 9 months. Slurries also do not enjoy great water resistance and they cannot be used under water although efforts are being made to make slurries useful even under water. But in view of the relatively greater safety, there is a gradual switch over from NG based explosives to slurry explosives all round the world. The applicants have sent to the Commission the annual report of Du Ponts for 1975 according to which Du Ponts propose to shut down their last dynamite factory by 1976 and replace it by a factory for slurry explosives. It will no doubt require considerable market efforts on the part of the slurry manufactureres to overcome the consumer resistance to the new variety of explosives and to disabuse their minds of the preference for variety of explosives which is in vouge over a number of years.

4·33 The Chowgules propose to have foreign collaboration for the project. The Department of Economic Affairs have accepted the scheme of finance proposed by Chowgules on condition that no foreign collaboration will be permitted. It is difficult to reconcile this condition with the general policy of the Government in regard to this industry. It is accepted as a part of that policy that technology in this field being somewhat sophisticated and at an advanced stage, foreign collaboration will be considered on merits in each case. This view is confirmed by D.G.T.D. extract from whose report is reproduced earlier at paragraph (3·02). It is also significant that almost all the projects proposed or under operation have some kind of foreign collaboration. Even the public sector undertakings like IBP has an arrangement with a foreign collaborator i.e. Ireco Chemicals. We, therefore, do not see any reason why Chowgules should not be allowed this project or its scheme of finance just because it involves foreign collaboration. The foreign collaboration proposed by them will no doubt be examined by other authorities like Foreign Investment Board and the Department of Economic Affairs. But at this stage the foreign collaboration proposed by them seems to us to be broadly acceptable. In the field of Slurry explosives M/s. Du Ponts are second to none in the world. This position is accepted even by the public sector undertakings, one of whom as stated earlier has now availed of collaboration with a competitor of Du Ponts. The terms of collaboration also do not appear to us to be unreasonable having regard to the terms of collaboration proposed in the case of others, viz., IBP. Even the cost per tonne on account of imported plant and machinery is less in the case of Chowgules proposal than in the case of WIMCOs or in the case of IBP or for that matter in the case of IEL. It seems to us worthwhile that a new technology in the new line of explosives, viz., Slurry explosives should be brought to the country so that it can compete with the existing technology available with I.E.L. and IDL and the new technologies which are proposed to be imported by Narendra Explosives (for NG) and IBP (for slurries). There is going to be a provision that Chowgules could sub-licence the technology. This is a very useful provision from the point of view of ensuring that multiple collaborations are avoided and, at the same time, there is no undue competition among Indian parties for obtaining technology from the same foreign source. This aspect is therefore very important and we would like to make sure that in the foreign collaboration agreement that is finally concluded between the applicant company and M/s. Du Pont, a provision for permission to the Chowgule's to sub-licence the technology on terms considered reasonable by Government would be included. In this connection we would also like to make sure that no scope is left for any collusive behaviour on the part of producers in this field as a result of possible understandings and collusion between their foreign collaborators. We have mentioned in our Report on the proposal of M/s. Indian Explosives Ltd. (Sections 1·19 to 1·22) that certain understandings between ICI and its predecessors on the one side and Du Pont on the other have existed for a long time. Even in regard to CIL with whom IEL now has collaboration arrangement for Slurry explosives, there was an understanding that CIL was not to spread out to other countries through licensing their processes "unless both ICI and Du Pont believe it is advantageous to so spread out". We have no information of whether any such understanding and arrangement between ICI and Du Pont continous to this date. It cannot however be overlooked that one of the important points mentioned in these understandings was that as far as possible there should be no record about such arrangements which may go against the anti trust laws of the countries concerned. We would therefore like to be cautions in this respect so as the safeguard the interests of the country and the consumers of explosives. From this point of view, we think it will be useful to make sure that Du Pont technology can be sub-licenced by Chowgules on terms decided to be reasonable by the Central Government and preference should be given in any such sub-licensing to a public sector undertaking. We would also suggest that such sub-licensing of technology should be available only to an undertaking which has no other foreign collaboration and which has no foreign equity. This will ensure that there is no misuse of the provision for sub-licensing of technology.

4·34 The financial position of the company during the last five years has been as under :—

TABLE 14

Financial Position of the Company 1970-71 *to* 1974-75

Rs. lakhs **

	1970-71	1971-72	1972-73	1973-74	1974-75
1	2	3	4	5	6
Capital Employed :					
Net Fixed Assets	961·10	876·81	769·58	625·31	591·78
Working Capital :					
Current Assets Minus	426·07	454·16	529·10	680·08	1411·43
Current Liabilities	238·40	261·35	275·03	402·52	648·30
Working capital	187·67	192·81	254·07	277·56	763·13
Capital Employed	1148·77	1069·62	1023·65	902·87	1354·91
Share Capital	300·25	300·25	300·25	300·25	300·25
Reserves & Surplus	429·00	317·17	333·90	*276·76	566·13
Loans	492·80	507·95	427·71	340·01	540·96
	1222·05	1125·37	1061·86	1017·02	1407·34
Less Investment capital work-in-progress and losses	73·28	55·75	38·21	114·15	52·34
Capital Employed	1148·77	1069·62	1023.65	902·87	1354·91
Average Capital Employed	1172·69	1109·19	1046·63	963·26	1128·89
Equity/Debt Ratio	1 : 0·68	1 : 0·82	1 : 0·67	1 : 0·50	1 : 0·62

Source.—Applicant Company.

*Development Rebate Reserve.

**Year ending 31st March upto 31-3-1974 and year ending 30th June thereafter.

It would be seen from the above that the company may not find it difficult as promoters to subscribe to the capital of the new company to the extent of Rs. 24 lakhs. The company has also provided details in regard to the cash flow statement for the 5 years period ending with 1979-80. A copy of the same statement is enclosed as Annexure 6.

4·35 The cash flow statement has been prepared by the company after taking into account the requirements of finance of other projects which are also in hand. It would be seen therefrom that during the year 1977-78, the company has provided an amount of Rs. 49·40 lakhs for investments in other companies. This provision has been made to meet the investment requirement for the new explosives project.

Profitability of the Project

4·36 The Company has also supplied cost of production and profitability statement as estimated by them in respect of new explosives project for the first five years of its operation. These are given in Annexure 7. In arriving at the cost of production and profitability statement, the company has estimated the cost of raw material at Rs. 3,850·00 per tonne on the basis of quotations received from the indigenous suppliers. It also includes transportation charges. The company expects to purchase ammonium nitrate, sodium nitrate etc. In regard to the prices of imported raw material, these have been taken into account on the basis of prices indicated by M/s. Du Pont and customs duty and inland transport charges have been added to the same. Royalty has been calculated at 3% of the ex-works sales realisation excluding items which are imported. Imported raw material for this purpose has been estimated at 1·35% of the sales value of Rs. 5,000/- per tonne. The estimates have been made on the assumption that the realisation on account of sales would be Rs. 5,000/- per tonne. It is very likely that the estimates of expenditure may also undergo changes in practice depending upon the prices of raw materials, payment made to labour etc. etc. On this point, the Company has stated that if there is going to be any increase in the raw material and labour charges, there would be a proportionate increase in the selling price also. The company has furnished a break-even analysis assuming sales realisation of Rs. 5,000/- per tonne. The same is also enclosed as Annexure 8.

4·37 It would be seen from the analysis that the break even point will be reached by the company when it reaches a production level of 9,041 tonnes of explosives, the cost of the various elements of production remaining the same.

4·38 We do not apprehend any difficulty about the raw materials for the project. If the existing suppliers, viz., FCI or Hindustan Steel are not able to supply ammonium nitrate in required quantities, Deepak Nitrate may be able to supply. If the worst comes to worst Chowgules may have to set up facilities for the manufacture of ammonoium nitrate from ammonia and nitric acid and considering the availability of ammonia and nitric acid, the difficulty in setting up this facility was not insuperable. This will no doubt require additional investment and modification of the scheme of finance but the applicants can approach the Government if and when such contingency arises. We do not see why a project concerned with production of a critical input vital for key sectors of economy should be thwarted by fear of shortage of raw material like ammonium nitrate. If it is not available, its production can be increased as its other ingredients are readily available in the country.

4·39 The proposed products also involves the use of Mythlamines which are produced in India only by the FCI. FCI has communicated to the Commission that the available supplies of this material are already committed to other priority uses. When questioned during the Public Hearing, Chowgules indicated that they have been assured supply of this material by the FCI in 1975 (see Annexure 5 for a copy of this letter). They do not fear any difficulty, at least in the initial years. As an alternative, if this material is not available from the FCI, they can manufacture this material on the basis of Methanol which will be available in the country, apart from others, from M/s. Swadeshi Polytex Ltd. (see Annexure 5 for a copy of this letter). It was also indicated that Du Pont technology can use a number of other sensitizers in place of mythlamines and hence there would be no problem even if this material is not available to the company.

4·40 The question then remains whether Chowgules should be allowed to set up the capacity for 20,000 tonnes or whether they should be allowed to set up smaller capacity. They have given reasons why capacity for 20,000 tonnes would be more viable than capacity for 12,000 tonnes. These reasons are given in paragraph (2·25). In substance they emphasise the economies of scale. One plant for PRM with a capacity for 3500 or 4000 tones and two plants for the explosives with a capacity for 3000 tonnes each will be utilised for the production of 12,000 tonnes upto the third year of the project by working the PRM plant on one shift and the two explosives plants on two shifts. From the fourth year the PRM plant is proposed to be worked on two shifts and the explosives plants were going to work for three shifts. The assumption is that 4000 tonnes of PRM are adequate for production of 12,000 tonnes of explosives. Accepting this assumption the economies of scale would no doubt weigh in favour of the applicant's claim. The initial capital cost will be spread over larger turnover and production and similarly other indirect expenses like expenditure on infrastructure and even research and development will also be spread over larger quantities. The larger output will give the producers greater manoeuvrability regarding the product mix, especially because it is proposed to tailor the supplies to the requirements of the mine owners. The projections of the demand in the neighbouring area also seem to be in excess for 12000 tonnes, although the estimate of demand of 20,000 tonnes may be on the liberal side.

4·41 On the other hand, it is suggested in many quarters, including by some objectors, viz., IBP and IDL that a unit manufacturing about 7000 tonnes can be reasonably viable. It is also suggested that having regard to the nature of the commodity, it is better to have smaller units separated from each other rather than have one large unit concentrated at one place. This will eliminate the risk of accidents, labour trouble or any other difficulty paralysing the production of larger capacity and creating difficulties for industry using explosives as an input. There is also the danger of large unit pre-empting the demand for production of other struggling units.

4·42 On a balance of all these considerations we are inclined to the view that no embargo should be placed on the size of the proposed unit at 12000 tonnes. There can be no doubt about the economies of scale flowing from larger unit. As a matter of fact on the formula suggested by Chowgules one PRM unit working for two shifts may produce sensitizers enough for 24000 tonnes of explosives. There is no question of the plant reaching the maximum capacity immediately. At the end of the third year when the production will reach 12000 tonnes if the demand projections so permit, there is no reason why the unit which is in operation should not be allowed to enjoy the economies of scale. The two plants for explosives can no doubt be located at some distance from each other so as to eliminate the possibility of break down in one causing break down in another and the economics in overheads in research and development and for infrastructure will be more effectively ensured if the units are near to each other than they are far off from each other. We are, therefore, of the view that Chowgules should be allowed to set up the capacity comprising one PRM unit of 3500 to 4000 tonnes and two explosives units of 3000 tonnes each and if the economies of the situation so permit they should be allowed to work the PRM on two shifts and explosives units in three shifts, subject to the maximum of 20,000 tonnes capacity.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

5·01 Based on the analysis given in Chapter IV our conclusions are as under :—

(1) There is not much necessity to bring about any major addition to licensed capacity for the purpose of satisfying the expected demand for explosives by 1978-79.

(2) For the latter part of the VIth Five Year Plan, there would be scope for an additional capacity of about 55-65,000 tonnes of industrial explosives per annum.

(3) For assessing the production capacity of the immediate future years, it is possible to take into account only those projects, whether in the public sector or private sector, which are likely to reach the take off stage in the near future and contribute to the production in the first half of the VIth Plan period.

(4) There is room for additional capacity for the manufacture of explosives, whether in the public or private sector, if the proposed project is feasible on its inherent merits.

(5) By reason of the ownership of the new company proposed by Chowgules being broad based, the danger of concentration of economic power to the common detriment will be reduced to a minimum.

(6) There is some merit in the claim of Chowgules that by reason of their experience in iron ore mining and the use of explosives therein they will be in a position to disseminate their expertise regarding economic usage of explosives especially for open cast mining.

(7) The location of the proposed plant in the State of Karnataka at one of the sites in the mine belt has inherent advantages.

(8) The technology proposed by Chowgules is also quite suitable to the requirements of the situation.

(9) It is worthwhile that a new technology in the line of slurry explosives followed by Du Ponts should be brought to the country so that it can compete with the existing technology available with IEL and IDL and the new technology which is proposed to be imported by Narendra Explosives and IBP.

(10) No embargo should be placed on the size of the proposed unit at 12000 tonnes.

5·02 Our recommendation flowing from the conclusions arrived at by us is that Chowgules should be allowed to set up the capacity for the manufacture of industrial explosives comprising one PRM Unit of the capacity of 3500 to 4000 tonnes and two explosives units of the capacity of 3,000 tonnes each and if the economies of the situation so permit they should be allowed to work the PRM Unit on two shifts and explosives units in three shifts, subject to the maximum of 20,000 tonnes capacity.

5·03 The Scheme of finance will be subject to the conditions imposed by the Department of Economic Affairs. The foreign collaboration agreement will be subject to the scrutiny by the Foreign Investment Board.

5·04 There will be a provision for sub-licensing in the collaboration agreement and in giving the sub-licence Chowgules should give preference to a public sector undertaking if the same is willing to get the sub-licence. Our observations in para 4·33 of Chapter IV may be borne in mind by the authorities concerned.

(Sd/)
(JUSTICE J. L. MAIN)
Chairman

NEW DELHI
30-7-76

(Sd/-)
(H.K. PARANJAPE)
Member

(Sd/-)
(H. N. JHALA)
Member

ANNEXURE I

List of Participants in the public hearing held on 8th June, 1976 on the proposal of Chowgules

I. The Applicant Company

1. Shri V.D. Chowgule, Chairman & Managing Director.
2. Shri V.V. Chowgule, Director.
3. Shri A.V. Chowgule, Director.
4. Shri P.D. Kunte, Advisor.
5. Shri M.M. Vadi, Advisor.
6. Shri L.D. Samant, Manager.
7. Shri M.R.S.N. Rao, Manager,
8. Shri K.T. Potdar, Manager.
9. Shri B.V. Mahamuni, Manager.
10. M/s. Crawford Bayley & Co., Solicitors.
11. Shri N.S. Phatarphekar, Solicitors.

II. Objectors :

1. *IDL Chemicals Ltd.*
    - (i) Shri V.C. Katoch, Executive Director.
    - (ii) Shri S.C. Chadha, Controller, Delhi Office.
    - (iii) Shri V.G.K. Thathachary, Secretary.
    - (iv) Shri A.P. Manjrekar, Sr. Dy. Manager, Sales.
    - (v) Shri J. Ravi Kumar, R & D Coordinator.
2. *Narendra Explosives Ltd., Dehradun*
    - (i) Shri N.K. Jain, Managing Director.
3. *Indo Burma Petroleum Company Ltd.*
    - (i) Shri H. Bhargava, General Manager, Chemical Division.

III. Government Departments :

1. *Ministry of Industrial Development, New Delhi.*
    1. Shri H.H. Tyabji, Deputy Secretary.
2. *Directorate General of Technical Development, New Delhi.*
    1. Shri J.S. Matharu, Development Officer.
3. *Department of Coal, Ministry of Energy, New Delhi.*
    1. Shri M. Jha, Director.
4. *Indian Bureau of Mines, Nagpur.*
    1. Shri S.K. Choudhury, Regional Controller of Mines.
5. *Planning Commission, New Delhi.*
    1. Shri V.V.S.R. Hanumantha Rao, Officer-on-Special Duty (Minerals).
6. *Government of Karnataka.*
    1. Shri B.R. Prabhakar, Director Industries, Govt. of Karnataka.

ANNEXURE 2

Capital employed and lines of business of interconnected undertakings of Chowgules

Name of the Company	Year established	Lines of Business	Capital as on	Employed Rs. lakhs
1	2	3	4	5
1. Chowgule Steamships Ltd.	1965	Shipping	31- 3-74	558·51
2. Arlem Breweries Ltd.	1969	Bear	30- 9-74	187·81
3. Goa Pesticides Pvt. Ltd.	1965-66	Pesticides	31- 3-74	10·68
4. Cartybon Pvt. Ltd.	1965-66	Stationery articles	31- 3-74	26·37

1	2	3	4	5
5. Konkan Fisheries Pvt. Ltd.	1968	Sea Food	30-6-74	79·04
6. Goa Food Products Pvt. Ltd.	1965	Canned fruits & marine foods	30-3-73	30·95
7. Chowgule Industries Pvt. Ltd.	1965-66	Trading	31-3-74	11·40
8. Gomantak Pvt. Ltd.	1967-68	Newspaper	31-3-74	11·22
9. Kolhapur Oxygen & Acetylene Pvt. Ltd.	1968-69	Industrial Gases	31-3-74	6·59
10. Janta Machine Tools Ltd.	1959	Machine Tools	31-12-73	31·58
11. Chowgule Engineering Co. Pvt. Ltd.	1965	Industrial & Mining Machinery components	31-4-74	19·98
12. Chowgule Real Estate & Construction Co. Pvt. Ltd.	1963	Construction & Real Estate	31-3-74	19·26
13. Chowgule Chemical Pvt. Ltd.	1958	Vegetable non-essential oil	30-6-75	1·89
14. Chowgule & Co. (Hind) Pvt. Ltd.	1947	Resin Pharmaceuticals Tablets, Liquid, Ointment, Injections, Capsules, Tetanus Toxoid, General Vaccin, Serum, ATS Vaccin Serum ADS	30-6-74	110·60
15. Camera Works Pvt. Ltd.	1959	Cameras, Enlargers	31-12-73	7·14
16. Chowgule Bros.	1916	*	31-12-73	36·91
17. Allodies	1968	*	31-12-74	2·80
18. Hindustan Bulk Carriers Ltd.	1972	Shipping	Activities not yet commenced.	
19. Chowgule Textiles Mills Ltd.	1970	Textiles	Activities not yet commenced.	

* Data not available.

Source.—The applicant Company. Annual Reports and Balance Sheets.

ANNEXURE 3

Realisation from Exports by Chowgules

Sl. No.	Name of the Product	Quantity exported (M. Tonnes)	Ex-factory realisation	*Earnings by way of foreign exchange	† Ex-factory cost of production of exported quantity along-with details relating to how this has been estimated
1	2	3	4	5	6
			Rs.	Rs.	Rs.
I. Iron Ore :	1970-71	12·10	414·33	625·27	174·56
	1971-72	14·16	470·50	699·56	219·34
	1972-73	12·30	427·76	663·22	199·66
	1973-74	9·22	385·10	486·63	172·96
(15 months)	1974-75	17·66	971·93	1072·96	480·53
Iron Ore Pellets :	1970-71	4·96	395·85	501·55	243·93
	1971-72	4·20	327·60	422·27	258·76
	1972-73	4·29	340·96	430·52	269·24
	1973-74	4·79	454·56	550·74	311·88
(15 months)	1974-75	4·69	616·10	650·91	453·29

*Foreign Exchange earnings are higher because of a part of the contract is on C & F basis.

† For cost as at

We have taken the cost as at MOHD Loading Point. These have been worked out as per standard accounting procedures.

ANNEXURE 3—*Contd.*

(Figures in Lacs)

Sl. No.	Name of the Product		Ex-factory price in India	Payments of royalties T.A. fees relating to the exported quantity	Imports of raw materials for the exported quantity	Commission paid, if any, for the exported quantity	†Other payments in foreign exchange (to be specified) if any relating to exports	Net inflow of Foreign Exchange from Exports
			7	8	9	10	11	12
				Rs.	Rs.	Rs.	Rs.	Rs.
I.	Iron Ore :	1970-71 · ·	@	Nil	Nil	8·18	109·82	507·77
		1971-72 · ·		,,	,,	9·96	151·44	588·16
		1972-73 · ·		,,	,,	8·77	151·66	502·79
		1973-74 · ·		,,	,,	6·79	44·57	435·27
	(15 months)	1974-75 · ·		,,	,,	12·71	79·91	980·34
	Iron Ore Pellets :	1970-71 · ·	@	,,	,,	7·33	2·00	492·22
		1971-72 · ·		,,	,,	5·96	23·27	393·04
		1972-73 · ·		,,	,,	6·40	14·67	409·45
		1973-74 · ·		,,	,,	7·29	14·78	528·67
	(15 months)	1974-75 · ·		,,	,,	7·80	23·18	619·93

* The goan iron ore does not have a market in India because of its location being far away from the existing steel producers. Transport cost of the same to the steel producers is very prohibitive. Hence price in India is not applicable.

† The payment in foreign exchange is mainly due to payment of ocean freight as part of the contracts is on C & F basis. Besides other expenses such Demurrage, Sampling at destination and Travelling Expenses abroad are included.

Source:—The applicant Company.

ANNEXURE 4

TABLE 'A'

Present Status of Mineral Production (1967 *to* 1974) *and Estimated Production for the Year* 1979 *and* 1984

(000 Tonnes)

Mineral	Year wise Production					
	1967	1968	1969	1970	1971	1972
1. Iron Ore · · · · · ·	19,105	21,107	29,567	31,366	34,310	35,391
2. Limestone · · · · ·	19,586	21,020	22,517	23,801	25,079	26,053
3. Manganese · · · · ·	1,574	1,559	1,486	1,673	1,841	1,643
4. Dolomite · · · · ·	1,167	1,272	1,283	1,148	1,320	1,348
5. Bauxite · · · · ·	804	943	1,085	1,370	1,517	1,684
6. Copper · · · · ·	470	484	511	518	666	873
7. Lead-Zinc Ore · · ·	164	192	214	267	297	353
8. Mica · · · · · ·	18	18	19	16	15	14
9. Gold · · · · · ·	452	507	477	527	598	605
10. Magnesite · · · · ·	246	253	298	349	296	251
11. Coal · · · · · ·	68,223	70,813	75,411	73,698	71,824	75,658
12. Gypsum · · · · ·	1,115	1,115	1,115	925	1,088	1,104
		(AV)				

ANNEXURE 4—*Contd.*

Mineral	Yearwise Production		Estimated Production	
	1973	1974	1979	1984
1. Iron Ore	35,562	35,305	67,000*	87,500*
2. Limestone	25,341	25,049	51,000†	70,000†
3. Manganese	1,489	1,473	3,100**	3,850**
4. Dolomite	1,449	1,201	2,245†	3,350†
5. Bauxite	1,292	1,092	2,600‡ (Al metal —430)	3,800 (Al metal-630)
6. Copper	1,102	1,417	5,750§ (Cu metal-57·5)	8,000 (Cu metal-80)
7. Lead-Zinc Ore	431	506	NE	NE
8. Mica	14	13	40†(1981)†	NE
9. Gold	567	524	NE	NE
10. Magnesite	193	268	602	697
11. Coal	77,870	83,265		
12. Gypsum	886	985		

NE—Not estimated.

*Report of the Task Force on iron and steel (Vol. I) Steering Group on Matalliferous Industries (Fifth Plan) May, 1973.

†Task Force on Industrial Minerals.

**Task Force on Ferrous group of Minerals.

‡Task Force on non-ferrous metals (Aluminium & Magnesium). Figures for ore based on 6 tonnes of ore per tonne of Al metal.

§Task Force on Non-ferrous metals (Copper & Nickel). Figures for ore based on 1% Ave. Cu, content.

@Report of the Refractories Committee Vol. II. Report of the Raw material sub-committee.

Source.—"Future trends in Explosives requirements in India"—Paper delivered by Mr. D.N. Bhargava, Controller of Indian Bureau of Mines at AN-FO seminar held at Goa on 20-21 September, 1975.

Source.—The applicant Company.

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ANNEXURE 4—*Contd.*

TABLE B

The Company's Estimates of the demand of Explosives

(Figures in 000 tonnes)

	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
Demand	55	60·5	66·5	73·2	80·5	88·5	97·4	104·4	115·0 (Normal 10% growth rate in mining and demand of explosives)
Increased demand due to kuremukh, Bababudan, Donimals Goa, Bellary Hospet Andhra, Tamil Nadu & Gujarat	..	..	..	18·0	18·0	19·0	22·0	22·0	22.0
Total Demand	55	60·5	66·5	91·2	98·5	107·5	119·4	126·4	137·0

Source.—The applicant Company.

ANNEXURE 4—*Contd.*

TABLE 'C'

Future Projection of Demands of Explosives in Goa & Neighbouring Areas

(Unit : Million Tonnes)

Year	Mineral	GOA			KARNATAKA			ANDHRA			TAMIL NADU		
		Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total
1978	Iron Ore	14·6	36·4	51·0	30·0	18·0	48·0	..	..	..	..	..	..
	Lime stone	..	..	..	5·0	5·0	10·0	5·0	5·0	10·0	7·0	7·0	14·0
	Manganese	0·5	0·5	1·0	1·0	1·0	2·0	2·5	2·5	5·0	..	..	..
	Others	1·0	1·0	2·0	2·0	2·0	4·0	2·0	2·0	4·0	2·0	2·0	4·0

Year	Mineral	GUJARAT			Total Rock breaking	Explosives requirement @ 8 Tons/Kg.
		Ore	Waste	Total		
	Iron Ore	..	..	..	99·0	
	Lime Stone	5·0	5·0	10·0	44·0	
	Manganese	..	..	..	8·0	
	Others	2·0	2·0	4·0	18·0	
	TOTAL				169·0	18000 Tons.

YEAR	MINERAL	GOA			KARNATAKA			ANDHRA			TAMIL NADU		
		Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total
1979	Iron Ore	14·7	36·7	51·4	30·0	18·0	48·0	..	..	..	..	..	..
	Limestone	..	..	..	5·0	5·0	10·0	5·0	5·0	10·0	7·0	7·0	14·0
	Manganese	0·5	0·5	1·0	1·0	1·0	2·0	2·5	2·5	5·0	..	..	..
	Others	1·0	1·0	2·0	2·0	2·0	4·0	2·0	2·0	4·0	2·0	2·0	4·0

ANNEXURE 4—*Contd.*

Year	Mineral	GUJARAT			Total rock breaking	Explosives Requirement @ 8 Tons/Kg.
		Ore	Waste	Total		
1979	Iron Ore	..	..	..	99·4	
	Limestone	5·0	5·0	10·0	44·0	
	Manganese	..	..	..	8·0	
	Others	2·0	2·0	4·0	18·0	
	Total				169·4	18000 Tons.

Year	Mineral	GOA			KARNATAKA			ANDHRA			TAMIL NADU		
		Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total
1980	Iron Ore	14·0	35·0	39·0	46·0	22·0	68·0	..	..	..	..	..	..
	Limestone	..	..	..	5·0	5·0	10·0	5·0	5·0	10·0	7·0	7·0	14·0
	Manganese	0·5	0·5	1·0	1·0	1·0	2·0	2·5	2·5	5·0	..	..	..
	Others	1·5	1·5	3·0	2·5	2·5	5·0	2·5	2·5	5·0	2·5	2·5	5·0

Year	Mineral	GUJARAT			Total Rock breaking	Explosives Requirement @ 8 Tons/Kg.
		Ore	Waste	Total		
1980	Iron Ore	..	..	..	117·0	
	Limestone	5·0	5·0	10·0	44·0	
	Manganese	..	..	..	8·0	
	Others	2·5	2·5	5·0	23·0	
	TOTAL				192·0	19000 Tons

YEAR	MINERAL	GOA			KARNATAKA			ANDHRA			TAMIL NADU		
		Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total
1981	Iron Ore	12·6	37·9	50·6	46·0	22·0	68·0	..	..	..	..	..	..
	Limestone	..	..	..	8·0	8·0	16·0	8·0	8·0	16·0	11·0	11·0	22.0
	Manganese	1·0	1·0	2·0	1·5	1·5	3·0	3·5	3·5	7·0	..	..	..
	Others	1·5	1·5	3·0	2·5	2·5	5·0	2·5	2·5	5·0	2·5	2·5	5·0

Year	Mineral	GUJARAT			Total rock breaking	Explosives Re @
		Ore	Waste	Total		
1981	Iron Ore	..	..	..	118·6	
	Limestone	8·0	8·0	16·0	70·0	
	Manganese	..	..	..	12·0	
	Others	2·5	2·5	5·0	23·0	
	TOTAL				223·6	22000 Tons

(*Source* : The Applicant Company)

Year	Mineral	GOA			KARNATAKA			ANDHRA			TAMIL NADU		
		Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total	Ore	Waste	Total
1982	Iron Ore	11·9	35·7	47·6	46·0	22·0	68·0	..	..	..	..	..	..
	Limestone	..	..	..	8·0	8·0	16·0	8·0	8·0	16·0	11·0	22·0	22·0
	Manganese	1·0	1·0	2·0	1·5	1·5	3·0	3·5	3·5	7·0	..	..	..
	Others	1·5	1·5	3·0	2·5	2·5	5·0	2·5	2·5	5·0	2·5	2·5	5·0

Year	Mineral	GUJARAT			Total rock breaking	Explosives Requirement @ 8 Tons/Kg.
		Ore	Waste	Total		
1982	Iron Ore	..	..	..	115·6	
	Limestone	8·0	8·0	16·0	70·0	
	Manganese	..	..	..	12·0	
	Others	2·5	2·5	5·0	23·0	
	TOTAL				220·6	22000 Tons

ANNEXURE 4—(*Contd.*)

TABLE 'D'

Demand of Explosives; Projected Estimation for next 10 *Years of Chowgules' Mines*

(Unit : Million Tonnes)

Year	Mines Production				Waste stripping (1 : 3 Ratio)	Total rock breaking	Rock Breakage by explosives	Explosives requirements @ 8 tons of rock breaking ing/Kg. of explosives
	Lumps	Fines	Pellet feed	Total				
1978	1·0	1·0	3·0	5·0	15·0	20·0	16·0	2000 Tonnes
1979	1·0	1·0	3·0	5·0	15·0	20·0	16·0	2000 Tonnes
1980	1·0	1·0	3·0	5·0	15·0	20·0	16·0	2000 Tonnes
1981	1·0	1·0	3·0	5·0	15·0	20·0	16·0	2000 Tonnes
1982	1·0	1·0	3·0	5·0	15·0	20·0	16·0	2000 Tonnes
1983	1·0	1·0	3·0	5·0	16·25 (1 : 3·25)	21·25	17·25	2150 Tonnes
1984	1·0	1·0	3·0	5·0	16·25	21·25	17·25	2150 Tonnes
1985	1·0	1·0	3·0	5·0	16·25	21·25	17·25	2150 Tonnes
1986	1·0	1·0	3·0	5·0	16·25	21·25	17·25	2150 Tonnes
1987	1·0	1·0	3·0	5.0	16·25	21·25	17·25	2150 Tonnes

Chowgules.—We expect to open new mining areas in Karnataka and consumption of explosives will be proportionately increased.

(*Source.*—The Applicant Company)

ANNEXURE 5

Copies of letters from the prospective suppliers of raw materials to Chowgules

ANNEXURE 5

THE FERTILIZER CORPORATION OF INDIA LIMITED
(GOVERNMENT OF INDIA UNDERTAKING)
(TROMBAY UNIT)

Marvali, Chamber,
Bombay-400074.

Bombay, dated the 15th September, 1975

Our Ref. No. IPD : DEV : MAM : 11

M/s. Chowgule & Co. Pvt. Ltd.,
Mormugao Harbour,
Goa-403803.

Dear sirs,

Ref : *Monomethylamine* 40%

We understand through a copy of a letter written to you by Shri A.D. Amroliwala of M/s. Deepak Nitrate Ltd. that you are in need of Monomethylamine.

We are happy to inform you that we have undertaken production of Methylamines at our Trombay factory and are in a position to cater to your requirements. You may kindly send us your enquiry and also please let us know your present and anticipated requirements and also the end-product, you intend to manufacture with our Monomethylamine 40%. Our quotation and technical litrature on Monomethylamine are enclosed for your perusal.

We had earlier submitted samples of Monomethylamine at your Bombay office and if you desire, we would be willing to give you more/samples for your trials.

Thanking you,

Yours faithfully,
(Sd.) S. GHILDYAL
Sales Officer

ANNEXURE 5—(*Contd.*)

DEEPAK NITRITE LIMITED

10, B, Bakhtawar, Nariman Point,
Bombay-400021.

Date : 30-4-1976.

Our Ref : DML/C(44)/103/S6
M/s. Chowgule & Company Pvt. Ltd.,
Mormugao Harbour,
Goa-403803.

Kind attn : Mr. M.R.S.N. Rao
Manager Development

Dear Sirs,

Re : *Nitric Acid.*

We acknowledge receipt of your letter No. PD/EXPL/005 dated April 29, 1976.

Please be informed, that at present we are manufacturing Nitric Acid of 53% and 60% concentration only. However, we shall shortly be starting production of 70%. Our 98% Nitric Acid plant will also be commissioned shortly thereafter and in view of this we do not envisage any difficulty whatsoever in catering to your entire requirements of both 67% and 80% Nitric Acid.

The price for these grades of Nitric Acid will be intimated to you as soon as we start production, which please note.

Thanking you and assuring you of our best attention.

Yours faithfully,
for & on behalf of
DEEPAK NITRITE LTD
(Sd.)
SHIRISH DESAI
Commercial Executive

ANNEXURE 5—*Contd.*

DEEPAK NITRITE LIMITED

10-B, Bakhtawar,
Nariman Point,
Bombay-400021.

सत्यमेव जयते

Dated : 30-4-1976.

Our Ref : DML/C(44)/102/S6
M/s. Chowgule & Company Pvt. Ltd.,
Mormugao Harbour,
Goa-403803.

Kind attn : Shri M.R.S.N.Rao
Manager Development

Re : *Sodium Nitrate*

We acknowledge with thanks receipt of your letter No. PD/EXPL/004 dated April 29,1976.

We have noted your requirement of Sodium Nitrate to the tune of 1500 tones per annum from 1978-79 and 2500 tonnes per annum from 1982-83 onwards. We confirm we shall be in a position to meet your entire requirement of this item.

As required by you, our current quotation is enclosed herewith for your reference.

Please however note, that the material will be supplied at the price prevailing at the time of despatch .A copy of our specification sheet is also enclosed.

Thanking you and assuring you of our best attention,

Yours faithfully,
for & on behalf of
Deepak Nitrite Ltd.
(Sd.)
SHIRISH DESAI
Commercial Executive.

ANNEXURE 5—*Contd.*

HINDUSTAN STEEL LIMITED
FERTILIZER PLANT

ROURKELA-7 (Orissa)
Pin Code : 769007

5th May 1976

Ref. No. FP/CS/T/2·10/133
M/s. Chowgule & Co. P. Ltd.,
Mormugao Harbour,
402803, Goa.

Ref : *Ammonium Nitrate—your letter dt.* 30-4-76.

Dear Sirs,

We have got adequate capacity for manufacturing 83% Ammonium Nitrate which is primarily meant for the manufacture of fertilizers. Any diversion of Ammonium Nitrate from fertilizer production to other purposes would require clearance from the Ministry of Agriculture and the Ministry of Fertilizers & Chemicals. Further for putting up such a plant will require clearance from the Ministry of Heavy Industries. Subject to these clearances being available it would be generally possible for us to supply Ammonium Nitrate on a long term basis.

Transportation of Ammonium Nitrate with 83% concentration from Rourkela to Goa is not a practical proposition. Hence the material has to be in a solid form i.e. granular, crystalline or flakes form and thereafter transported in sealed drums or in HSPE bags. Since we are making Ammonium Nitrate only up to 93% concentration in our plant, the manufacture of granular/crystalline form would require additional plant to be set up. Possibly this could be negotiated at a later date and the plant can be put up either by us or by us at your cost or by you at Rourkela.

Prices of Ammonium Nitrate would depend on various factors like Naptha cost, coal prices, cost of equipment etc. Without any commitment, I can indicate that 83% Nitrate might cost you about Rs. 1500 per tonnes ex-our Works and in solid form Rs. 2,000 per tonnes.

Hope this preliminary information will serve your purpose.

Thanking you,

Yours faithfully,
for HINDUSTAN STEEL LIMITED
Rourkela Fertilizer Plant
(Sd.)
(M. THEYUNNI)
Chief Superintendent (*FP*)

सत्यमेव जयते

ANNEXURE 5—*Contd.*

MANGALORE CHEMICALS & FERTILIZERS LIMITED

Panambur Mangalore 575010; Karnataka State

1976-04-19

No.100/742-D/194
M/s. Chowgule & Co. Pvt. Ltd.,
Mormugao Harbour,
403803 Goa.

SUB : Supply of ammonia for your proposed, plant for manufacture of explosives.

Dear Sirs,

This has reference to your letter dated 31st October, 1975 and the subsequent discussions your Mr. Ramesh Chowgule, Director and Mr. V.V. Sathe, Manager, Project Department, had with the undersigned on 15th January, 1976.

2. We are pleased to inform you that the Board of our Company has agreed, in principle, to supply ammonia upto 10 tonnes per day required by you subject to the condition that the price and other terms and conditions of supply are mutually negotiated. Also please note that supply of ammonia to your Company would be subject to your obtaining he necessary clearances from the Government of India for your explosives project.

3. We may add that the ammonia will be supplied at our plant and you will have to provide the necessary containers to transport it to your plant site. We also venture to hope that your plant will be located as far as possible to eliminate any risk to our plant from any accidental explosion in our plant.

Yours faithfully
for MANGALORE CHEMICALS & FERTILISERS LTD
(Sd.)
(B.K. SHRIDHAR)
President Director

ANNEXURE 5—*Contd.*

DEEPAK NITRITE LIMITED

10-B, Bakhtawar, Nariman Point
Bombay-400021.
Dated 1-5-1976

Our Ref : DNL/C(44)/104/S6

M/s. Chowgule & Co. Pvt. Ltd.,
Bakhtawar, 3rd Floor, Nariman Point,
Bombay-400021.

Kind attn : Shri M.R.S.N. Rao
Manager Development

Dear Sirs :

Re : *Ammonium Nitrate*

We acknowledge with thanks receipt of your letter No. PD/EXPL/006 dated April 29,1976.

In this connection, please be informed that we are holding an Industrial Licence for manufacturing 5,000 MT Ammonium Nitrate per annum. However, on account of slackness in the demand of this item at present, we have not started production of the same.

We, however, confirm that on receipt of the indication of your confirmed requirement, we shall be in a position to put up the plant for the item within 6 months time. After commissioning of this plant, we will be in a position to supply you your entire requirement of prilled Ammonium Nitrate.

Please note that we will not be in a position to supply you Ammonium Nitrate solution.

Thanking you,
Yours faithfully,
for & on behalf of
DEEPAK NITRITE LTD.
(Sd.)
SHIRISH DESAI
Commercial Executive.

सत्यमेव जयते

ANNEXURE 5—*Contd.*

SWADESHI POLYTEX LIMITED
GHAZIABAD (UP)

SALES : 76

June 8, 1976.

M/s. Chowgule & Co. Private Limited,
Bakhtewar, 3rd Floor,
Nariman Point,
Bombay-400021.

Dear Sirs,

We are in receipt of your letter dated 31st May, 76, enquiring about the supply of Mathanol.

As your requirement pertains for the year 78-79 we are unable to quote the rates and confirm the supply at this stage. However, we assure you that at the time of your requirement, we shall consider supplying you Methanol, if possible, at the then prevailing rates.

Thanking you,

Yours faithfully,
for Swadeshi Polytex Limited
(Sd.)
Administrative Officer

ANNEXURE 5(a)

Estimates of Demand for Explosives Prepared by various Organisations.

TABLE 4

Estimates of Demand for Explosives by 1978-79 *prepared by the Explosive Committee*

	1974-75		1975-76			1976-77	
	Actual Production of mineral/ore	Actual consumption of explosives	Anticipated production of ore/mineral	Actual production during 1975*	Anticipated requirement of explosives	Anticipated production of ore/mineral	Anticipated requirement of explosives
	(Mil. Ton)	(Tonnes)	(Ml. Ton)	(Ml. Ton)	(Tonnes)	(Ml. Ton)	(Tonnes)
I. Mineral Sector							
1. Coal & Lignite	91	17000	109	98	30900	120	35300
	(Production of 1974)						
2. Iron Ore & Mangenese	34·2 1·36	3000	40	40·9	4000	47·7	5300
3. Limestone & Dolomite	23·5 1·15	2573	29·7	27·0	3300	34·85	4100
4. Copper Ore	1·3	1190	2·1	1·8	1900	3·1	2700
5. Bauxite	1·07	145	1·37	1·2	180	1·75	250
6. Clude Mica	·013	298	·017	·0112	340	·025	500
7. Lead & Zinc ore	0·4	448	0·7	·04	700	1·1	990
8. Gold Ore	0·62 (approx.)	375	0·65	2844 Kg. (Metal)	375	0·65	400
9. Other Minerals (Urenium, Asbestos, Chromite, Refractory Minerals).	..	900	..	..	1000	..	1150
Total of item No. 2 to 9		8929			11795		
*II. Other Sector*** (Civil Engg.)		11500			13600		
Project, Defence, Irrigation etc.		37429			56295		

ANNEXURE 5(a)—*Contd.*

TABLE 4—*Contd.*

	1977-78		1978-79		1983-84*	
	Anticipated production of ore/ mineral	Anticipated requirements of explosives	Anticipated production of ore/ mineral	Anticipated requirement of explosives	Estimated production target	Anticipated requirement of explosives
	(Ml. Ton)	(Tonnes)	(Ml. Ton)	(Tonnes)	(Mil. Ton)	(Tonnes)
I. Mineral Sector						
1. Coal & Lignite	130	41400	141	46600	212	69734
2. Iron Ore & Mangenese	53·6	6700	66·5 3·0	8100	87·5 3·8	10645
3. Limestone & Dolomite	44·20	5200	53·2	6500	73·3	8955
4. Copper Ore	4·56	3800	6·0 (Ore) 57,000 ton. of cu metal.	5000	1,21,000 (metal in tonnes)	10614
5. Bauxite	2·20	310	2·65	400	6,93,000 (Al metal in tonnes)	644
6. Clude Mica	·033	650	·04	800	NE	800
7. Lead & Zinc Ore	1·6	1280	2·4	1700	2,80,000 (Metal, Lead & Zinc.)	4033
8. Gold Ore	0·65	400	0·65	400	NA	400
9. Other Minerals (Uranium, Asbestos, Chromite, Refractory Minerals).	..	1300	..	1500		2415
Total of Item No. 2 to 9	15390		19640		24400	38506
*II. Other Sector*** (Civil Engg.)	15700		17800		20000	30000
Project, Defence, Irrigation etc.	66390		78840		91000	137880 (138240)

*Estimates supplied by the Indian Bureau of Mines.

**Estimates as indicated by the manufacturers of Expl. +Actual Total.

(*Source :* Indian Bureau of Mines)

ANNEXURE 5(a)

TABLE 5

Estimates of Demand for Explosives by 1978-79 as supplied by the Department of Coal

Sector	ORGANISATIONS					
	Planning Commission		I.B.P.		Department of Coal	
	Production target (Ml. tonnes)	Explosives requirement (Tonnes)	Production target (Ml. tonnes)	Explosives requirement (Tonnes)	Production target (Ml. tonnes)	Explosives requirement (Tonnes)
Mining						
Coal & Lignite	140·0	38,000	141·0	43,113	141·0	46,985
Iron Ore & Manganese	60·2	7 000	61·0	7,450	70·0	8,100
Limestone/Dolomite	48·0	5,800	49·5	6,100	53·2	6,500
Copper	4·5	3,700	4·1	4,060	6·0	5,000
Bauxite	1·8	300	1·8	270	2·4	1,700
Lead & Zinc	2·2	1,500	2·4	1,700	2·4	1,700
Other Minerals	..	2,000	..	2,000	..	2,000
TOTAL MINING	..	58,000	..	64,693	..	70,965
Non-Mining	..	20,000	..	20,000	..	20,000
GRAND TOTAL	..	78,000	..	84,693	..	90,965

(*Source.*—The Department of Coal).

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ANNEXURE 5(a)

TABLE 6

Estimates of Demand for Explosives by 1978-79 as prepared by IBP

Zones	Mining	Non-mining	Total	Permissibles	Non-permissibles	Total
Eastern	30,186	8,000	38,186	14,190	23,996	38,186
Central	20,315	1,000	21,315	6,352	14,963	21,315
Western	1,880	1,000	2,880	..	2,880	2,880
Northern	4,525	6,500	11,025	..	11,025	11,025
Southern	7,787	3,500	11,287	3,600	7,687	11,287
TOTAL	64,693	20,000	84,693	24,142	60,551	84,693

(*Source.*—Indo Burma Petroleum Company Ltd.)

ANNEXURE 5(a)

TABLE 7

Estimates of Demand for Explosives by 1978-79 as prepared by IDL Chemicals

(Explosives in tonnes)

Production	1975-76			
	PSD	LD	NPSD	Total
1	2	3	4	5
Coal 99 MT	19800	4600	700	25100
Lignite 4·2 MT		300	..	300
Iron 41·30 MT Mangenese 1·70		3400	1750	5150
Limestone Dolomite 29·00 MT		1750	1700	3450
Copper Metal 18000		60	1340	1400
Gold			350	350
Zinc Ore 680429			700	700
Mica 13000			340	340
Uranium			280	280
Aluminium (Bauxite) (1·27 MT)			175	175
Sundry Mine			400	400
TOTAL MINES	19800	10110	7800	37710
DGBR			1500	1500
Major & Minor irrigation, Hydro Electric, Road, Railways & Other Projects		190	9000	9190
Total Non-mining		190	10500	10690
GRAND TOTAL	19800	10300	18300	48400

ANNEXURE 5(a)—(*Contd.*)

TABLE 7—(*Contd.*)

(Explosives in tonnes)

Production	1976-77				
	Target	PSD	LD	NPSD	Total
1	6	7	8	9	10
Coal	108 MT	21425	5400	700	27525
Lignite	4·6 MT		400		400
Iron	46 MT		4125	1850	5975
Mangenese	2·0 MT				
Limestone Dolomite	35 MT		2100	2050	4150
Copper Metal	25000		100	1900	2000
Gold				350	350
Zinc Ore				800	800
Mica				360	360
Uranium				310	310
Aluminium (Bauxite) (1·27 MT)				225	225
Sundry Mine				400	400
TOTAL Mines		21425	12125	8945	42495
DGBR		..	..	1600	1600
Major & Minor Irrigation, Hydro Electric, Road Railways & Other projects.		..	300	10500	10800
Total Non-Mining		..	300	12100	12400
GRAND TOTAL		21425	12425	21045	54895

NOTE.—PSD—Permitted Small Diameter. LD : Large Diameter, NPSD : Non-permitted Small Diameter. (*Source* : IDL Chemicals Limited).

ANNEXURE 5(a)—*Contd.*

TABLE 7—*Contd.*

(Explosives in tonnes)

Production	1977-78				
	Target	PSD	LD	NPSD	Total
1	2	3	4	5	6
Coal	120 MT	25775	6875	700	33350
Lignite	5·1 MT		550		550
Iron Mangenese	51 MT 2·4 MT		4400	1975	6375
Limestone Dolomite	43 MT		2650	2530	5180
Copper Metal	34000		150	2550	2700
Gold				375	375
Zinc Ore				920	920
Mica				425	425
Uranium				350	350
Aluminium (Bauxite) (1·27 MT)				285	285
Sundry Mine				400	400
TOTAL MINES		25775	14625	10510	50910
DGBR				1800	1800
Major & Minor Irrigation, Hydro Electric, Road, Railways & Other projects.			450	12500	12950
Total Non-mining			450	14300	14750
GRAND TOTAL		25775	15075	24810	65660

ANNEXURE 5(a)—(*Contd.*)

TABLE 7—(*Contd.*)

(Explosives in tonnes)

Production	1978-79				
	Target	PSD	LD	NPSD	Total
1	7	8	9	10	11
Coal	135 MT	31725	8250	700	40675
Lignite	6 MT		700		700
Iron Mangenese	58 MT 3 MT		5250	2100	7350
Limestone Dolomite	53·2 MT		3275	3075	6350
Copper Metal	45000		200	3300	3500
Gold				400	400
Zinc Ore	100000 (Metal)			1100	1100
Mica				500	500
Uranium				400	400
Aluminium (Bauxite) (1·27 MT)	(Metal) 400000			360	360
Sundry Mine				400	400
TOTAL MINES		31725	17675	12335	61735
DGBR				2000	2000
Major & Minor Irrigation, Hydro Electric, Road, Railways & Other projects.			600	15000	15600
Total Non-mining			600	17000	176000
GRAND TOTAL		31725	18275	29335	79335

NOTE.—PSD—Permitted Small Diameter. LD—Large Diameter. NPSD—Non-permitted Small Diameter.

(*Source :* IDL Chemicals Limited)

ANNEXURE 5(a)

TABLE 8

Estimates of Demand for Explosives by 1978-79 submitted by Narendra Explosives Ltd.

Mineral	1972 (actual)			1978-79 (estimated)		
	Quantity raised (Million tonnes)	Consumption of explosives (Tonnes)	Tonnes explosives used for m. tonnes mineral raised	Quantity targetted to be raised Million tonnes)	Tonnes explosives required per M.T.	Requirement of explosives (Tonnes)
Coal/Lignite	79	14,000	77·2	147	274	40,300
Iron Ore/Magnanese	32 1·6	3,650	108·6	66·5 3·0	108·6	7,550
Limestone/Dolomite	27	3,180	118	53·2	122	6,500
Bauxite	1·66	250	151	2·65	151	400
Copper Ore	0·87 (eqv. to 10,400 tonnes copper)	625	718	6 (eqv. to 57,000 tonnes copper)	833	5,000
Lead/Zinc	0·3	216	720	2·4	720	1,700
Gold	0·6	355	392	0·64	592	380
Mica	0·014	298	21,300	0·015	21,300	320
Other minerals	..	719	..	..	..	1,000
Total Mining	..	23,293	..	..	..	63,150
Non-mining*	..	13,400†	..	..	..	20,000
GRAND TOTAL	..	36,693	..	..	..	83,150

*As estimated by IEL.

†1972-73

(*Source*: Narendra Explosives Ltd.)

ANNEXURE 6

Cash Flow Statement

(Rs. in lacs)

	PROJECTED YEAR				
	I 1975-76	II 1976-77	III 1977-78	IV 1978-79	V 1979-80
SOURCES OF FUND					
Opening Cash Balance	254·79	609·93	293·53	304·68	728·03
Share Issue	..	..	..	..	..
Profit before Taxation, after interest, depreciation and Development rebate.	454·57	329·98	327·88	563·46	622·57
Depreciation provision	169·30	140·22	187·79	168·55	152·89
Development Rebate Reserve	..	..	..	..	..
Increase in Secured Loans	321·40	..	..	..	..
Increase in Unsecured Loans and Deposits	201·50	84·82	..	..	..
Increase in Bank Borrowing for Working capital	..	..	50·00	..	..
Increase in Liability for Deferred payment	..	169·69	21·00	..	..
Sale of Investments	..	..	..	..	..
Other Incomes	..	..	..	..	..
Increase in Current Liabilities and provisions	..	..	..	..	..
Decrease in Working Capital, Current Assets, Loans Advances	..	..	..	..	..
	1401·56	1334·64	880·20	1036·69	1503·49
POSITION OF FUNDS					
Capital Expenditure (with details)	642·40	538·78	141·39	..	25·60
Increase in Working Capital (Current Assets, Loans and Advances).	..	..	71·00	..	..
Decrease in Secured Loans	49·23	87·59	82·04	81·12	65·56
Decrease in Unsecured Loans & Deposits	..	..	12·00	50·23	57·00
Decrease in Banks Borrowings for Working capital	..	..	..	..	..
Decrease in Liability for Deferred payments					
Taxation	..	404·74	219·69	125·49	305·29
Dividend	..	..	..	..	..
Increase in Investment in Companies/Others	100·00	10·00	*49·40	28·00	22·60
Deposits in Bank Current Account	609·93	293·53	304·68	728·03	1003·62
Decrease in Current Liabilities and Provisions	1401·56	1334·64	880·20	1036·69	1503·49

The main capital expenditure is on company's Benefication Plant to be set up at Costi, Sirigao for which application is pending with MRTP Commission.

	Salt	Spinning	Weaving	Total	
1.	6·40	..	..	6·40	+636·00
2.	16·00	14·35	7·78	38·13	+500·65
3.	16·00	81·30	44·09	141·39	+ —
4.	25·60	..	..	25·60	
	64·00	95·65	51·87		

*Provision has been made for investment in Explosives Project.
(*Source* : The applicant company)

ANNEXURE 7

Cost of Production and Profitability

	I Year	II Year	III Year	IV Year	V Year
PRODUCTION (Tonnes)	10000	12000	12000	15000	20000
Sales	9000	12000	12000	15000	20000
				(Figures in Rs. lakhs)	
I. INCOME					
Sales Value	450·00	600·00	600·00	750·00	1000·00
II. EXPENDITURE					
(a) Material	385·00	462·00	462·00	577·50	770·00
(b) Salaries and Wages	10·00	10·00	10·00	15·00	15·00
(c) Stores and Spares	1·00	1·00	1·00	2·00	2·00
(d) Power, Fuel and Water	0·33	0·33	0·33	0·50	0·50
(e) Repairs and Maintenance	2·40	2·40	2·40	3·60	3·60
(f) Depreciation	17·25	17·25	17·25	17·25	17·25
(g) Interest	34·20	35·94	37·19	34·49	34·82
(h) Royalty	14·80	17·76	17·76	22·20	29·60
(i) Other Overheads	5·00	5·00	5·00	6·00	6·00
(j) Administrative Overheads	10·00	10·00	10·00	12·00	12·00
(k) Selling and Distribution	10·00	10·00	10·00	14·00	14·00
TOTAL EXPENDITURE	489·98	571·68	572·93	704·54	904·77
Stock Adjustments	(42·15)	0·90	..	(0·04)	1·14
Profit before tax	+2·17	27·42	27·07	45·50	*94·09
Investment Allowance	(43·13)	..	..	..	..
Tax Provision	..	..	..	..	46·88
Provision for Dividends	..	..	9·60	9·60	9·60
Retained Profits	(40·96)	27·42	17·47	35·90	37·61
Cumulative Retained Profit	(40·96)	(13·54)	3·93	39·83	77·44

*In the 4th and 5th years there will be necessity of addition of certain balancing equipment details of which can be worked out only after obtaining basic engineering data. The cost of production may also go up due to increase in raw material cost and wages details of which will be worked out while making DPR.

ANNEXURE 8

BREAKEVENANALYSTS :

Production	12,000 t.p.a.
	(Figures in Rs. lakhs)
Sales	600·00
Variable Cost :	
Raw material	462·00
Power & Water	0·33
Royalty	17·76
Selling & Distribution	5·00
	485·09
Contribution	114·91
Fixed Cost :	
Salaries & Wages	10·00
Stores & Spares	1·00
Repairs & Maintenance	2·40
Depreciation	17·24
Interest	35·94
Overheads	15·00
Selling & Distribution	5·00
	86·58

Total Fixed Cost

$$\text{Breakeven} = \frac{86{\cdot}58}{114{\cdot}91} = 75{\cdot}34\%$$

OR 9040·8 tonnes of explosives

No. 2/12/75-M(1)

GOVERNMENT OF INDIA

MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS
DEPARTMENT OF COMPANY AFFAIRS

BEFORE THE CENTRAL GOVERNMENT

In the matter of an application under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969;

AND

In the matter of a proposal from Chowgule & Company Private Limited for the establishment of a new undertaking for the manufacture of Industrial Explosives.

Chowgule & Company Private Limited (hereinafter referred to as the 'applicant company') made an application under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 (hereinafter referred to as the 'Act') for the establishment of a new undertaking in Karnataka for the manufacture of 20,000 tonnes per annum of Industrial Explosives valued at Rs. 10 crores. The cost of the project originally estimated at Rs. 1.50 crores, was revised upwards to Rs. 2.40 crores during the pendency of the application which included Rs. 50 lakhs as working capital margin. The project cost is proposed to be financed by issue of share capital and loans from financial institutions. The applicant company and/or its interconnected undertakings will be subscribing 40% of the equity capital of the new company.

2. The applicant company was registered on the 24th October, 1970 under Section 20(a)(ii) read with Section 26 of the Act and belongs to Chowgule Group.

3. The applicant company advertised its proposal in the Newspaper/Journal in accordance with the prescribed procedure and objections were received in this Department from I.D.L. Chemicals Limited, Hyderabad.

4. On the basis of the information available in regard to the demand and the likely availability by end of the 5th Plan, it was not fully established that there was need for creation of additional capacity for Industrial Explosives, the Central Government accordingly came to the conclusion that no order under Section 22(3) (a) of the Act could be made in this case without further enquiry. In exercise of the power conferred by clause (b) of sub-section (3) of Section 22 of the Act, the Central Government referred the proposal of the applicant company to the Monopolies and Restrictive Trade Practices Commission (hereinafter referred to as the 'Commission') for further enquiry and report.

5. In its Report, the Commission has recommended approval of the proposal of the applicant company subject to certain conditions on the ground that the applicant company has an impressive record in industrial activity and is having important overseas contracts. The proposed project is closely aligned with applicant's own iron ore mining business and because of their long experience in iron ore mining and use of explosives, it would be able to use this expertise in finding out economical uses of explosives especially for open cast mining. The applicant company has a well developed R&D. The technology is being proposed to be imported from Du Pont who are one of the most renowned in this field in the world. Moreover, the proposed technology is in keeping with the world trends in favour of Slurry Explosives. The location of project is in a backward area of Karnataka and with 40% shareholding in Chowgules' hands in the new company, it will be a broad-based company. The Commission's recommendations are:

(1) The applicant company should be allowed to set up the capacity for the manufcture of industrial explosives comprising one PRM unit of the capacity of 3500 to 4000 tonnes and two explosives units of the capacity of 3,000 tonnes each and if the economies of the situation so permit they should be allowed to work the PRM unit on two shifts and explosives units in three shifts, subject to the maximum of 20,000 tonnes capacity;

(2) The scheme of finance will be subject to the conditions imposed by the Department of Economic Affairs. The foreign collaboration agreement will be subject to the scrutiny by the Foreign Investment Board; and

(3) There will be a provision for sub-licensing in the collaboration agreement and in giving the sub-licence Chowgules should give preference to a public sector undertaking if the same is willing to get the sub-licence. The Government authority should take adequate precaution in this respect.

6. The Commission has also come to a finding that while there is no scope for licensing any additional capacity for industrial explosives to meet the projected demand in the Fifth Plan, there is scope for some licensing at this stage to meet the projected demand in the Sixth Plan period, particularly keeping in view the importance of this industry to the coal, iron ore and other vital national sectors. Based on the estimates made by the Planning Commission, Indo-Burma Petroleum Company Ltd., and the Department of Coal, the Commission has assumed that in 1983-84, the demand is not likely to exceed 1,40,000 tonnes, for which, on the basis of 80% capacity utilisation, the licensed and installed capacity should be 1,75,000 tonnes. Taking the installed capacity that may be there in the beginning of the 6th Plan, the Commission has come to the conclusion that there would be a gap of 55,000 to 65,000 tonnes in the later period of the 6th Plan.

7. After taking into consideration the above findings of the Commission and all the relevant factors, the applicant company was informed that its proposal could be considered subject to the following conditions:

(1) Import of plant and machinery will be settled to the satisfaction of Government.

(2) Import of raw materials will be permitted in accordance with the policy in force from time to time.

(3) No foreign participation in the equity capital of the new company will be permitted. Other terms of foreign collaboration will be settled to the satisfaction of Government.

(4) Shares of the new company will be listed on a recognised stock exchange in accordance with listing guidelines.

(5) Loans from financial institutions, if any, will be subject to the usual convertibility clause.

(6) The applicant company i.e. Chowgule & Company Private Limited will maintain the equity debt ratio at 1:2 and net block debt ratio at 1:0.50 and if it is not able to do so, it shall raise fresh capital from persons unconnected with Chowgule Group and convert itself into a public Limited company.

(7) There will be a provision for sub-licensing in the foreign collaboration agreement on terms to be settled to the satisfaction of Government, and in giving the sub-licence, the new company would give preference to public sector undertakings.

A copy of the Commission's Report dated 30-7-1976 was supplied to the applicant company and to the objectors who had disclosed their interest before the Commission/Government.

8. A hearing in terms of Section 29 of the Act was given to the applicant company and to the objectors. Besides the applicant company, the representatives of the objector companies (1) M/s. IDL Chemical Limited and (2) M/s. Indo-Burma Petroleum Company Limited, attended the hearing. The representative of the Narendra Explosives Limited, another objector company was not present. The reprentatives of the applicant company conveyed acceptace of all the proposed conditions of approval except condition No. (6) mentioned in para 7 above. The reason adduced by the applicant company was that it was merely acting as a promoter of a new venture and the conditions to be imposed by the Government should be only on the new company. This stand of the applicant company was considered valid and condition No. (6) has been reworded as follows:

"The new company will maintain the equity debt ratio at 1:2."

The applicant company has accepted this revised condition. The representative of the Indo-Burma Petroleum Company stated that there would be no demand for explosives upto the end of the 5th Plan period which will not be covered by existing licensed capacity. There may be some scope in the later half of the 6th Plan period for additional capacity and, as such, it was too early to approve any fresh capacity at the present stage and more so, when the objector company was capable of setting up fresh capacity that may be required to meet the demand. They stated that in case the Government desired to grant fresh capacity immediately, the objector company would be in a position to offer technology and know-how to it and that there was no need for importing any new technology from Du Pont. The representatives of IDL Chemicals Limited, another objector to the proposal, stated that the targets of production of coal and iron ore have been reduced considerably and as such corresponding demand for explosives would go down. In the absence of any immediate demand and likely demand in the near future, small companies like IDL Chemicals and Narendra Explosives would be hit hard in the face of competition from giants like the applicant company.

9. The Central Government has carefully considered the recommendations made by the Commission in its Report dated the 30th July, 1976, the submissions made by the applicant company and the objectors at the hearing. The present capacity is 78,000 tonnes and taking into account the capacity sanctioned to other units such as Indo-Burma Petroleum Company Ltd., Narendra

Explosives Ltd., etc. the total capacity would be 1,18,000 tonnes. Adding the capacity of 20,000 tonnes as per the present proposal, the total capacity would come to 1,38,000 tonnes which is not considered too high even taking into account the lower demand for explosives arising out of lower target for coal and iron ore production. There is thus a case for approving additional capacity of 20,000 tonnes as per the present application and it would be expedient in the public interest to accord approval to the proposal of the applicant company subject to the conditions hereinafter stipulated in the Order:

ORDER

The Central Government, in exercise of its powers under clause (c) of sub-section (3) of Section 22 read with Section 54 of the Monopolies and Restrictive Trade Practices Act, 1969, hereby approves the proposal of Chowgule & Company Private Limited for the establishment of a new undertaking in Karnataka for the manufacture of 20,000 tonnes per annum of Industrial Explosives on the basis of the scheme of finance as contained in its application dated the 23rd August, 1975 under Section 22 of the Act and as modified during the hearing before the Commission, subject to the following conditions:—

(1) Import of plant and machinery will be settled to the satisfaction of Government.

(2) Import of raw materials will be permitted in accordance with the policy in force from time to time.

(3) No foreign participation in the equity capital of the new company will be permitted. Other terms of foreign collaboration will be settled to the satisfaction of Government.

(4) Shares of the new company will be listed on a recognised stock exchange in accordance with the listing guidelines.

(5) Loans from financial institutions, if any will be subject to the usual convertibility clause.

(6) The new company will maintain the equity debt ratio at 1:2.

(7) There will be a provision for sub-licensing in the foreign collaboration agreement on terms to be settled to the satisfaction of Government, and in giving the sub-licence, the new company could give preference to public sector undertakings.

This approval does not constitute clearance under any other law for the time being in force.

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(Sd.)
M.K. KUKREJA
Joint Secretary to the Government of India.

NEW DELHI, THE
27th May. 1977

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REPORT UNDER SECTION 22 (3) (b) OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969, IN THE CASE OF HINDUSTAN ALUMINIUM CORPORATION LIMITED, BOMBAY

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MONOPOLIES AND RESTRICTIVE TRADE PRACTICES COMMISSION

Report under section 22(3)(b) of the M.R.T.P. Act, 1969 in the case of Hindustan Aluminium Corporation Limited for establishing a new undertaking for the manufacture of caustic soda, liquid chlorine, hydrochloric acid (commercial grade) stable bleaching power and benzene hexa chloride.

CHAPTER I

INTRODUCTION

1·01 Hindustan Aluminium Corporation Limited (Hindalco), Century Bhawan, Dr. Annie Basant Road, Bombay 25 submitted an application under Section 22(2) of the M.R.T.P. Act, 1969 on June 29, 1971 to the Government of India, Department of Company Affairs, for grant of approval to establish a new undertaking to manufacture Caustic Soda and its by-products. The application was referred to the Commission by the Central Government, Department of Company Affairs, under Section 22(3)(b) of the M.R.T.P. Act, 1969, *vide* their letter No. 2(14) 71 M(M) dated October 1, 1971, for enquiry and report.

1·02 In terms Section 30(2) of the M.R.T.P. Act, 1969, the Commission has normally to submit its report to the Central Government within three months. The date for the submission of the Report by the Commission to the Government had however to be extended on six occasions as shown below :—

Date of the Commission's Order	Extended date for submitting Report
31-12-71	15-5-72
24-4-72	30-8-72
22-8-72	30-9-72
25-9-72	15-3-73
15-3-73	18-8-73
17-8-73	31-8-73

1·03 The above extensions were primarily necessitated on account of delays in the conduct of the interconnection study of the Birla Group though some time was also taken in collecting the necessary data from the applicant Company, certain objectors and Government departments. Even at the last stage, the date had to be extended to permit the applicant Company to file its reply to certain points raised by an objecting party at the public hearing of the case.

1·04 The Central Government had referred certain applications of Kesoram Industries and Cotton Mills Ltd., Gwalior Rayon Silk Mfg. (Wvg) Co. Ltd., Hindustan Aluminium Corporation Ltd., and India Linoleums Ltd. to the Commission for enquiry and report. The aforesaid companies had not admitted inter-connections *inter se* or with any other companies excepting their own subsidiaries in terms of Section 2(g) of the Monopolies and Restrictive Trade Practices Act, 1969. These companies had been included in the Larger House of Birlas by the Industrial Licensing Policy Inquiry Committee. Moreover, many of the products in respect of which applications were made by these companies were also being produced by other companies in the 'Birla Group'.

1·05 The question of inter-connection is a very vital question in the consideration of matters arising under Chapter III & IV of the M.R.T.P. Act. For determining whether an undertaking is a dominant producer in any commodity or product, one has to take into account not only the output of the applicant company or undertaking but also the outputs of its-inter-connection undertakings. That is the reason for which Section 26 of the Act requires all inter-connection undertakings to register themselves with the Government. The Commission, therefore, considered it essential to go into the question of inter-connection of the aforesaid companies with certain other companies in the so-called Birla House. Such a study was also considered necessary for ascertaining at least in an approximate way the degree of concentration of economic power that the applicant Companies, together with their inter-connected Companies, enjoyed. It was, therefore, initially decided to go into the question of (including the applicant companies) and the Director of Investigation was directed on 21st December, 1971 to undertake the study.

1. Kesoram Industries & Cotton Mills Ltd.
2. Birla Jute Manufacturing Company Ltd.
3. Gwalior Rayon Silk Manufacturing (Wvg.) Company Ltd.
4. Hindustan Aluminium Corporation Ltd.
5. Jiyajee Rao Cotton Mills Ltd.
6. Century Spinning and Manufacturing Co. Ltd.
7. Sirpur Paper Mills Ltd.
8. Orient Paper Mills Ltd.
9. Mysore Cement Ltd.
10. Hindustan Motors Ltd.

1·06 As a result of certain initial inquiries in the case of Century Spinning, the Commission subsequently directed the Director of Investigation to enlarge the scope of the inter-connection study so as to include Bharat Commerce and Industries Ltd. and Zuari Agro Chemicals Ltd.

1·07 During the course of the investigations when summonses under Section 12 of the Act were issued to the Principal Officers of these companies asking for certain information, most of these companies took up a concerted stand and questioned the jurisidiction of the Commission to ask for such information. These legal contentions led to several personal bearings before the Commission and in some cases writ petitions before the Delhi and Calcutta High Courts. Two sets of summonses were issued to Hindustan Aluminium Corporation Ltd. on November 27, 1972 and December 18, 1972, seeking some information. Apart from raising legal objections, an objection was also raised by the Company regarding the relevance of the information asked for. It was, however, submitted that the Commission may assume for the limited purpose of dispoal of its application pending before the Commission that the applicant Company is 'inter-connected' as alleged and further enquiry may be proceeded with on the assumption that the Company is inter-connected with other concerns stated to be belonging to the 'Birla Group of Companies' in the (Dutt) Licensing Inquiry Committee Report.

1·08 The Commission passed an interim order on February 28, 1973 stating that it was no possible for the Commission to proceed on the basis of any assumption for the purposes of submitting its report to the Central Government. The petitioner Company was, however, at liberty to amend its application under Section 22 in the form prescribed under the Monopolies and Restrictive Trade Practices Rule, 1970, so as to state the names and addresses of all the inter-connected undertakings. The applicant Company subsequently amended its application filed before the Government and submitted to the Commission a copy of its amended applicant dated April 5, 1973. It has been stated in the revised application that considering the provisions of law the applicant Company is not interconnected with any company except those mentioned in its original application. However, purely with a view to facilitating and expediting the disposal of the application, the applicant agrees for the limited purposes of the disposal of the present application, that it may be assumed that the applicant Company is inter-connected with the following companies :—

1. Kesoram Industries & Cotton Mills Ltd.
2. Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd., Gwalior.
3. Birla Jute Manufacturing Co. Ltd.
4. Jiyajeerao Cotton Mills Ltd., Gwalior.
5. Century Spinning and Manufacturing Co. Ltd., Bombay.
6. Sirpur Paper Mills Ltd., Sirpur, Kagaznagar.
7. Orient Paper Mills Ltd., Brajrajnagar.
8. Mysore Cements Ltd., Bangalore.
9. Hindustan Motors Ltd., Calcutta.
10. Bharat Commerce & Industries Ltd., Delhi.

11. Bally Jute Co. Ltd., Calcutta.
12. Birla Cotton Spinning and Wvg. Mills Ltd., Delhi.
13. National Engineering Industries Ltd., Jaipur.
14. Sutlej Cotton Mills Ltd., Amritsar.
15. Zuari Agro Chemicals Ltd., Zuarinagar, Goa.
16. Bharat Produce Co. Ltd., Calcutta.
17. Birla Company (P) Ltd., Bombay.
18. Birla Bros. (P) Ltd., Calcutta.
19. Birla Gwalior (P) Ltd., Calcutta.
20. Birla Consultants (P) Ltd., Bombay.
21. Birla Buildings Ltd., Calcutta.
22. Eastern India Services & Marketing Co. Ltd., Calcutta.
23. Punjab Ginning & Pressing Co. Ltd., Calcutta.
24. Shree Services & Trading Co. Ltd., Calcutta.
25. Sutlej Cotton Mills Supply Agency Ltd., Gwalior.

1·09 In the meanwhile, the Commission also received the Final Report prepared by the Director of Investigation on the question of Interconnection. In view of the submission made by the applicant Company to the Government in its amendment to the application, the Commission decided not to proceed further in the matter of interconnection, as it was satisfied that the form of amendment made by the applicant company is sufficent for the purpose of disposing of the company's present application. Accordingly, the Commission decided to consider the application in the light of the above amendment.*

Applicant Company

1·10 Hindalco was incorporated as a public limited company at Bombay in 1958. In terms of existing licensed and installed capacity and also actual production, it is the largest aluminium undertaking in the country. Moreover, since its inception it has expanded considerably. According to the Economic Times**, Hindalco ranks twelfth among the top 101 companies in the private sector in India.

1·11 Hindalco's production plant went on stream in 1962 with a capacity of 20,000 tonnes per annum of primary aluminium and fabrication facilities to the extent of 15,000 tonnes. In 1963, Hindalco got an industrial licence to raise its capacity to 60,000 tonnes of primary metal and fabrication facilities of 37,000 tonnes per annum. In December, 1966 it was permitted to expand its capacity of primarily metal further to 1,20,000 tonnes per annum with the stipulation, among other things, that the envisaged expansion "shall be effected within 36 months from the date of issue of the industrial license." According to the applicant company's Annual Report for 1972: "The company completed its first stage of expansion about the middle of last year, increasing the installed capacity from 80,000 to 95,000 tonnes per year.......... The remaining expansion which would increase the capacity to 1,20,000 tonnes per year is under construction."

1·12 Hindalco has two broad divisions, namely, the main plant for the manufacture of primary aluminium and the second one for the manufacture of fabricated products. In the latter case, the licensed capacity at 37,000 tonnes per year has remained unchanged since 1963. Apart from the present case of caustic soda, Hindalco has made an application for the expansion of fabrication facilities corresponding to the increase in the capacity of the primary aluminium (from 60,000 tonnes to 1,20,000 tonnes) which is still under the consideration of the Government.

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*For further details regarding the interconnection investigation and the problems that arose, see the Commissions Report in the case of Kesoram Industries and Cotton Mills Ltd., submitted to the Government on 21-6-1973. A copy of the Final Report of the Director of Investigation is also enclosed with it.

**Finances of 101 Giant Public Limited Companies in the Private Sector: 1971-72, The Economic Times, February 24, 1973. p.6.

1·13 Data regarding production since 1965 are given in Table I. These indicate that between 1965 and 1970, Hindalco's overall production increased a little over thrice. However, since then, the annual overall production has remained more or less stagnant at about 78,000 tonnes.

TABLE I

Annual Production of Hindalco

(In Tonnes)

Year	Alumina	Primary Aluminium	Rolled Products	Extensions	Properzi Rods
1962	3,375	8,333	..	..	..
1963	39,040	22,138	..	..	..
1964	43,294	22,880	..	..	6,623
1965	50,426	25,243	1,068	1,549	8,000
1966	47,273	40,566	7,968	2,331	7,602
1967	65,472	43,614	8,969	2,429	11,988
1968	130,333	59,707	9,636	2,614	18,026
1969	153,250	72,231	11,162	2,980	20,868
1970	168,818	78,191	15,922	4,041	23,264
1971	166,122	78,002	17,077	5,148	24,027
1972	165,780	78,503	17,670	5,648	23,910

Source: Hindalco Journal, Summer—1973.

1·14 The main reason for the inadequate utilisation of increased capacity is said to be inadequate power supply. According to the applicant's latest annual Report. "The working during the year (1972) was seriously affected due to the perennial power shortage combined with the serious drought conditions as a result of which a 25 per cent power cut was imposed on the plant by the U.P. State Electricity Board since August, 1972. (This was increased to 40 percent during February, 1973 and further increased to 50 per cent from March, 1973, the effect of which will be reflected during the current year)." The Company is also involved in a dispute with the U.P. State Electricity Board regarding the electricity tariff.

1·15 It appears that for some time the Company may have to put up with the inadequacy of power supply. Because of this difficulty, it is making efforts to expand its own power generation capacity. It has been stated in the Annual Report for 1972 that "for permanent supply of power for the expanded capacity, Government had permitted the company to instal a 110 MW Thermal Set but desired the company to submit a proposal for installing a higher capacity generating set to enable the company to release the 55 MW of power being supplied by UPSEB. The Company accordingly has submitted a proposal to Government for permission to install a 250 MW bleeding turbine which is in line with the Government's latest concept of large installation of captive power stations with the 'total energy concept.' "

Dominance of Hindalco in Aluminium Industry

1·16 There are five aluminium manufacturing units in the country of which four are in the private sector and one in the public sector. The public sector unit has just commenced the production of alumina. In Table II data about the production of aluminium and fabricated products of the four units in the private sector are given. It will be seen that, in respect of both primary aluminium and fabricated products, Hindalco has a dominant position; it accounted for more than 37% of the total production in all the categories of aluminium during 1970-72.

TABLE II

Dominance of Hindalco in Aluminium Industry

('000 tonnes)

Item of Manufacture	Installed capacity						Production					
	Aluminium Industry			Hindalco's Capacity			Aluminium Industry			Hindalco's Proudction		
	1970	1971	1972	1970	1971	1972	1970	1971	1972	1970	1971	1972
Primary Metal	167.7	167.5	192.5	80.0 (47.7)	80.0 (47.7)	**95.0** (49.8)	161.1	178.2	179.1	78.2 (48.5)	78.2 (43.9)	78.5 (43.8)
Properzi Rods	1 46.3	41.1	2 34.1	3 12.0 (26.0)	4 24.9 (56.4)	4 24.9 (73.0)	42.9	42.3	43.4	23.3 (54.3)	24.0 (56.7)	23.9 (52.9)
Rolled Products	46.4	42.9	49.5	20.0 (43.1)	17.1 (40.0)	17.7 (35.7)	42.2	40.4	47.2	15.9 (37.6)	17.1 (42.3)	17.7 (37.3)
Extrusion	10.9	9.7	9.7	5.0 (46.0)	5.1 (52.5)	5.6 (57.7)	10.1	11.2	11.1	4.0 (40.6)	5.1 (45.5)	5.6 (50.4)

Note: Figures in Brackets relate to percentages.

1. Includes ad hoc capacity of 19,500 tonnes.
2. Ad hoc capacity of 10,000 tonnes per annum given to Hindalco was withdrawn in November, 1972.
3. Ad hoc capacity of 10,000 tonnes granted to meet the raise in demand.
4. Aluminium conducting redraw rods and commercial grade rejected rods are taken as properzi rods.
5. Separate figures for 15 units are not available. Figure relates to 4 major units.
6. Installed capacity may vary with the machines installed but the figures relate to licensed capacity.

Source: (i) DGTD

(ii) Hindalco Journal, Summer 1973.

Subsidiary Companies

1·17 The applicant company has two subsidiaries which are entirely owned by it. They are Minerals and Minerals Ltd. and Renusagar Power Company Limited. The former is concerned with the mining of bauxite, and the latter with the generation of power. The products of both are sold to the parent company.

Financial Structure

1·18 The net fixed assets (including construction work under progress) of Hindalco as on December, 31, 1972, were valued at Rs. 35,90 crores. The current assets, loans and advances stood at 27,04 crores and current liabilities and provisions were Rs. 8,72 crores. The total working capital of the company amounted to Rs. 18·32 crores.

1·19 The total capital employed works out to Rs. 54·22 crore which has been financed by share capital to the extent of Rs. 15·04 crores, reserves and surplus Rs. 28·21 crores and loans (less investments of Rs. 4·04 crores) Rs. 10·07 crores. It may be noted that the reserves and surplus are almost double the share capital. The debt equity ratio is 1:1. These data indicate that the present financial position of Hindalco is very sound.

1·20 Hindalco made a beginning with a paid up capital of Rs. 15 lakhs which increased to Rs. 15·04 crores by the end of December, 1972. The details of authorised, issued, subscribed and paid up capital are given below :—

Authorized			*As on December* 31, 1972
1,20,00,000	Equity Shares of Rs. 10/- each		12,00,00,000
2,50,000	9% Free of Company's tax but subject to deduction of taxes at source at the prescribed rates, Redeemable Cumulative Preference Shares of Rs. 100/- each.		2,50,00,000
2,50,000	9·3% of Company's tax but subject to deduction of taxes at source at the prescribed rates, 'B' Redeemable Cumulative Preference shares of Rs. 100/- each		2,50,00,000
30,00,000	Unclassified shares of Rs. 10/- each		3,00,00,000
			20,00,00,000
Issued			
1,00,45,916	Equity Shares of Rs. 10/- each		10,04,59,163
2,50,000	9% Free of Company's tax but subject to deduction of taxes at source at the prescribed rates, Redeemable Cumulative Preference Shares of Rs. 100/- each.		2,50,00,000
2,50,000	9·3% Free of Company's tax but subject to deduction of taxes at source at the prescribed rates, 'B' Redeemable Cumulative Preference shares of Rs. 100/- each		2,50,00,000
			15,04,59,163
Subscribed and Paid-up			
94,45,916	Equity Shares of Rs. 10/- each fully paid up	9,44,59,163	
	Less: Face value of shares forfeited	60,500	9,43,98,663
6,00,000	Equity Shares of Rs. 10/- each fully paid up issues pursuant to a contract for consideration other than cash		60,00,000
2,50,000	9% Free of Company's tax but subject to deduction of taxes to source at the prescribed rates, Redeemable Cumulative Preference Shares of Rs. 100/- each fully paid up in cash.	2,50,00,000	
	Less: Face value of Shares forfeited	27,000	2,49,73,000
2,50,000	9·3% Free of Company's tax but subject to deduction of taxes at source at the prescribed rates 'B' Redeemable Cumulative Preference Shares of Rs. 100/- each fully paid up in cash.		2,50,00,000
			15,03,71,663
	Less: Calls in-arrears due by Others (under reconciliation) . . .		4,000
			15,03,67,663
	Add: Forfeited Shares Account (Amount paid up)		29,875
			15,03,97,538

Shareholding Pattern

1·21 At the end of 1971, the equity share capital was Rs. 803,18,930 consisting of 30,35,943 shares of Rs. 10 each. During the year 1972, 20,07,973 equity shares of Rs. 10/- each were issued as bonus shares. Thus, the equity share capital as on December 31, 1972 was raised to Rs. 10,08,98,663. The Director of Investigation in his Final Report on Birla Interconnection has made a broad analysis of the shareholding pattern of Hindalco as on December 31, 1971. A summary of the analysis made by him is given below, while details are presented in Appendix I.

	Number of Shares	Percentage
(i) *Financial Institutions:*		
LIC/Financial Institutions/Nationalised Banks/Insurance Companies	3,57,798	4·45%
(ii) *Birla Group* :		
Members of the Birla Group alongwith their relatives	2,75,368	3·43%
Intercorporate Investments controlled by the Birla Group	19,56,651	24·34
Shares controlled by the Birla Group though registered in the name of trusted employees/banks/registered societies/ trusts along with reasons indicating control	3,17,015	3·94%
	25,49,034	31·71%
(iii) *Foreign Collaborators* :		
M/s. Kaiser Aluminium & Chemicals Corporation (USA)	19,82,530	
(iv) M/s. Kaiser Aluminium & Technical Service inc. (USA)	1,60,800	
	21,43,330	26·67%

1·22 The above data indicate that the voting power controlled by the Birla Group is 31·71% of the total. The two foreign collalorators have given proxies in favour of S/Shri G.D. Birla and A.V., Birla at the annual general meetings of the company held on June 5, 1970 and June 7, 1971. Thus including the equity shares of the two foreign collaborators, the voting power at the disposal of the Birla Group works out of to 58·38%.

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Foreign Collaboration

1·23 The applicant company has entered into foreign collaboration agreements with two companies for getting technical know-how and advice on a continual basis. The details of the agreements entered into with these two companies as reported by the applicant company are as under :

> "*With Kaiser Aluminium & Chemical Corporation* for Technical know-how, consisting of processes and operating reports, and a large quantity of other confidential material relating to the technology of the aluminium industry with full and exclusive right to use the same within the Union of India. In consideration of the transfer and assignement of the Know-how property, the Company issued and allotted to the said Kaiser Aluminium & Chemical Corporation 4,60,000 Equity Shares of the face value of Rs.10/- each Credited as fully paid up.
>
> "*With Kaiser Aluminium Technical Services Inc.* for Technical Advice to the Company and for assisting the Company in operating the Plant including aluminium fabrication by their qualified technicians and engineers and for supply of information for a period of 20 years on all Technical matters. As consideration for these services, the Company issued and allotted to the said Kaiser Aluminium Technical Services, Inc. 1,20,000 Equity Shares of Rs. 10/- each credited as fully paid up".

1·24 As on December, 31, 1971, Kaiser Aluminium and Chemical Corporation and Kaiser Aluminium and Technical Services Inc. held 19,82,530 and 1,60,800 equity shares. The shares of the two companies together accounted for ....as already mentioned, 26·67 percent of the equity capital of the company. The agreement provides for the participation of the foreign collaborators in any fresh issue of capital. The Company has stated in its application under Rule 6 of the MRTP Act, that "in any issue of fresh capital they (the two existing foreign collaborators) will have the option to participate to the extent of 26 per cent of the capital involved".

Research and Development

1·25 The applicant has reported that the R & D unit of the Company was started in 1963. The main jobs being looked after by the R & D department are as under :

> "(i) To give technical advice to our customers in selecting proper material and guidance about equipment and proper process; (ii) To promote new uses of aluminium in place of other scarce non-ferrous metals and special steels (iii) To develop new products and improve processing techniques in aluminium (iv) Quality control of aluminium products; (v) Substitution of imported materials and components (vi) Cost reduction by control of inputs and (vii) Utilisation of metallurgical wastes."

1·26 On being asked to furnish data relating to annual expenditure on R & D, the applicant stated that until 1970 the break-up of such expenditure was not maintained separately. In 1970, 1971 and 1972 the expenditure incurred on R & D amounted to Rs. 1·88 lakhs, Rs. 2·31 lakhs and Rs. 2·74 lakhs respectively. The number of persons exclusively engaged in R & D Work is 10, eight degree holders in metallurgical engineering and two science graduates. This strength has remained more or less unchanged since 1965.

1·27 The Company has further stated that it "has also contributed from time to time various amounts to Birla Institute of Technology and Science, Pilani, a leading institute for scientific research in the country to which various problems relating to the industry and arising in the course of Company's business are from time to time referred by our Research and Development Department".

1·28 It has been mentioned in the annual reports for 1970, 1971 and 1972 that Hindalco made a contribution of Rs. 20 lakhs to the Birla Institute of Technology and Science, Pilani. The applicant has stated that "the contribution is not against any particular research and development work".

Public Hearing

1·29 The public hearing on the applicant Compnay's case was held on August 9, 1973, and August 18, 1973, primarily to give an opportunity to the applicant and the objector (Kanoria Chemicals and Industries Ltd.) to clarify their position on some points such as the inadequate supply of caustic soda to Hindalco, the alleged breach of contract by Kanoria Chemicals and Industries Ltd., the present position and future prospects of supply of and demand for caustic soda, and the possible impact of Hindalco's proposed caustic soda plant (if and when established) on Kanoria Chemicals and Industries Ltd. and also to examine Whether Hindalco's proposal was in the public interest. The information furnished at the Hearing by the applicant Company. Kanoria Chemicals and the Government representatives has been incorporated at appropriate places in the body of the Report.

CHAPTER II

THE CAUSTIC SODA INDUSTRY

Chlor-Caustic Industry—Growth

2·01 The caustic soda industry or the Chlor-Caustic industry to give it its proper name is an important part of modern chemical industry. Caustic soda is an important input in a number of industries such as paper and pulp, rayon, textiles, soap and aluminium. Its co-product chlorine is also used for the production of hydrochloric acid, bleaching powder, PVC, BHC, DDT etc. As a result of these various uses. the industry has to develop rapidly in an industrialising economy.

2·02 The industry has first established in Indian in 1941 when two units with a capacity of five tonnes each per day were set up. There has been substantial expansion of the industry since then and specially since 1950. At present there are 29 units producing caustic soda in the country.

2·03 As a consequence of this continuous increase in domestic capacity, the imports of caustic soda have progressively, declined. While in 1950-51 imports accounted for about 64% of the total supply of caustic soda in the country, the imports ceased to be of any significant importance by 1968-69. As a result of the increase in demand since 1970, and the domestic supplied not having kept pace with such demand, there have been some marginal imports during the last few years. In the earlier stages of the industry, the size of the unit was small, ranging between 3,000 and 9,000 tonnes per annum though some units of even smaller sizes were established. It has, however, increasingly come to be realised that units have to be much larger if they are to be economical and efficient in this line of production and there has therefore been a tendency for the existing units to expand their capacity.

2·04 Data about installed capacity and production for the years 1961 to 1972 are given in the following table :—

TABLE III

Year	No. of Units	Installed Capacity		Actual Production		Capacity Utilisation %
		'000' Tonnes	Percentage Annual Increase	'000' Tonnes	Percentage Annual Increase	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1961	N.A.	124	. .	118	. .	95
1962	N.A.	127	2·4	124	5·1	98
1963	N.A.	188	48·0	152	22·5	81
1964	N.A.	152	34·0	184	21·1	73
1965	25	269	6·7	215	16·8	80
1966	25	296	11·0	231	7·4	73
1967	27	348	17·6	259	12·1	74
1968	28	367	5·4	295	13·9	80
1960	28	367	0·0	338	14·6	92
1970	28	367	0·0	357	5·6	97
1971	28	374	1·9	369	3·4	99
1972	29	428	14·4	391	6·0	91

N.A.—Not available

Source:— (i) DGTD
(ii) Ministry of Petroleum and Chemicals
(iii) Times of India Directory
(iv) Tariff Commission Report on the Fair
Selling Prices of Caustic Soda, Chlorine, Hydrochloric Acid and Bleaching Powder, 1967.

These data show that utilisation of the capacity has been very high in this industry, always exceeding 70% usually 80% and in some years 90%. The utilisation has been above 90% in all the years after 1969.

2·05 The targets for the Fourth Plan for the production of caustic soda was five lakh tonnes. This was revised downwards to 4·4 lakh tonnes in the Mid-Term Appraisal. Because of the slow development of capacity in the industry, shortages developed in the latter half of 1970. The Development Council for Inorganic Chemical Industry, therefore, appointed a Committee to examine the problem. On the basis of its report, attempts were made by Government to increase the licensed capacity in the industry. A Press Note was issued by the Ministry of Petroleum and Chemicals on March 31, 1971, inviting applications for undertaking the production of caustic soda. On the basis of the applications received, a number of licences and Letters of Intent have been issued and further applications are still under consideration. While the actual production in 1972 of caustic soda was 3·91 lakh tonnes, the installed capacity had increased to 4·4 lakh tonnes by June, 1973. It is estimated that the production in 1973 will probably be 4·2 lakh tonnes. It is further estimated that the capacity installed would reach 5.41 lakh tonnes by the end of the Fourth Five Year Plan.

Demand and Supply

2·06 It has already been indicated earlier that caustic soda is a major raw material vitally important for the growth of several industries like textiles, paper and pulp, rayon, vanaspati, soap and aluminium. Therefore, the demand for caustic soda is directly related to the progress of these industries. In view of the fact that almost all these industries have grown at a fairly fast rate during the past two decades, the demand for caustic soda has also gone up substantially. The domestic availability (domestic production plus imports) which may be said to correspond to the domestic demand has increased from 34,000 tonnes in 1950-51 to 3·89 lakh tonnes in 1971-72. (See Table below). This shows an average annual rate of growth of 49·6%. However, it appears that in recent years the rate of increase in demand has declined. Thus, between 1960-61 and 1971-72, the domestic supplies have increased only by 16·3% per annum. During the past four years, *i.e.* from 1968-69 to 1971-72, the corresponding figures works out only 5·9%.

TABLE IV

Year	*Estimated total supply* ('000' tonnes)
1950—51	34
1955—56	96
1960—61	139
1965—66	292
1968—69	314
1969—70	354
1970—71	371
1971—72	389

Source:—Economic Survey — 1972-73, Government of India, P. 164.

2·07 The estimates for the Fifth Plan have been worked out by a Task Force appointed for the purpose, which has assumed an annual rate of increase in the demand at ten per cent. In view of the fact that the demand increased at a rate a little less than 6% in the recent past, this estimate may be said to be somewhat generous in character. It is also expected that if production can be sufficiently increased, it may be possible to effect exports of caustic soda to a certain extent. The DGTD, during the course of the public hearing on this case, made available the information regarding the latest estimate about demand and capacity installed. This is given below :—

TABLE V

(Figures in '000' Tonnes)

Year	Annual installed capacity	Actual Production in the year	Estimated indigenous demand in the year	Assessment of surplus or deficit in the year
1	2	3	4	5
1968	367	306	300	+ 6
1969	367	347	340	+ 7
1970	368	361	360	+ 1
1971	378	376	400	—24
1972	428	391	420	—29
1973 (Estimated)	555	440	460	—20
1974 ,,	645	515	505	+10
1975 ,,	745	595	555	+40
1976 ,,	745	595	610	—15
1977 ,,	780	620	670	—50
1978	845	675	740	—65

2·08 It should be noted that production is estimated in this table on the basis of 80% utilisation of capacity. In view of the fact that capacity has been utilised in recent years to the extent of over 90%, this may prove to be an under-estimate. It will thus be seen that the demand estimate is slightly generous and the supply estimate slightly conservative. It is therefore not unlikely that the gap between supply and demand may not prove to be as large as indicated. It is of course difficult to be precise in this respect because one cannot be absolutely certain about which of the capacities that are sanctioned will ultimately materialise and when.

2·09 Moreover, if an export target of 50,000 tonnes is to be achieved in addition to the production of 7·40 lakh tonnes for domestic consumption, a total capacity of 10 lakh tonnes may have to be created. As against this the present expectation is that the installed capacity by 1978 would only be 8·45 lakh tonnes. There is still some scope, therefore, for further licensing of capacity. It is understood that 44 applications from various parties—existing units and new-units—are still under the consideration of the Government.

Regional Distribution

2·10 The existing units are unevenly distributed in the country with 13 units (having 64% of the total installed capacity) being located in the four States of Maharashtra, Gujarat, Tamil Nadu and Rajasthan.

2.11 At present there is only one unit located in U.P. at Renukoot, Mirzapur. It has recently expanded its installed capacity from 21,000 tonnes to 33,000 tonnes. The U.P. State Industrial Development Corporation has a Letter of Intent for 33,000 tonnes. The unit will be located in a backward district and is likely to be taken up as a joint sector project. Besides, there are seven applications from U.P. which are still under the consideration of the Government. Including Hindalco's project, the total envisaged annual capacity of these nine applicants is 1·43 lakhs tonnes. The existing unit has applied for doubling of its present capacity of 33,000 tonnes. Except for this unit, the rest of the applicants (including Hindalco) intend to establish new units. Relevant data are given below :—

A.	*Existing Unit*	*Capacity (in tonnes)*
1.	Kanoria Chemicals and Industries Limited	33,000 (already installed)
	Total of A.	33,000
B.	*Letters of Intent Issued*	
2.	U. P. State Industrial Development Corporation	33,000 (N. U.)
	Total of B.	33,000
C.	*Application Pending Consideration.*	
3.	Hinustan Aluminium Corporation Limited	26,000 (N.U.)
4.	Kapur Chemicals Industries	12,000 (N.U.)
5.	J.K. Rayon	18,000 (N.U.)
6.	Kanoria Chemical and Industries Limited	33,000 (N.U.)
7.	J.K. Cotton Spinning and Weaving Mills.	18,000 (N.U.)
8.	Nath Brothers	3,000 (N.U.)
9.	Modi Spinning and Weaving Mills Company Limited	33,000 (N.U.)
	Total of C	1,43,000
	Total of A, B and C	2,06,000

(N. U.=New Unit)

Economics of Production

2·12 In this connection it should be noted that caustic soda can be supplied in the form of lye or in the form of solid or flakes. As the cost of transporting it in the form of lye is high, such supply is only possible over comparatively short distances from the producing units. The production of flakes or solid caustic soda involves additional costs, both in the producing units and later in the using units.

2·13 There are two processes available for the manufacture of caustic soda—the mercury cell process and the diaphram cell process. The mercury cell process is more popular in India because "it lends itself to a clean and easy day-to-day operation and maintenance....(and) because of substantial fall in mercury prices and increase in cost of the nickel for the evaporator of the diaphram cells plant."* The main inputs required in the manufacture of caustic soda are salt, mercury, graphite anodes and power. Of these mercury has to be imported. Graphite anodes also have to be imported to a certain extent. Regarding the supplies of salt, it has to be noted that the main source of supply is from the West Coast and for units situated in other parts of the country, considerable transport costs have to be incurred for obtaining salt. According to the Alkali Manufacturers' Association of India, the delivered cost varies from Rs. 28 to Rs. 132 per tonne. As 1·8 to two tonnes of salt are required for the production of one tonne of caustic soda, units located near the salt-producing areas have a relative advantage in cost of production. At the same time, note has to be taken of the cost of transporting caustic soda. If it is transported in the form of lye, the transport cost is very high. Even if it is transported in the form of flakes or solids, the cost is somewhat high because of the special nature of packing and handling which is required.

2·14 Power is an important input of the industry, the requirements being 3,500 to 4,000 KWH for one tonne of caustic soda. The cost of power accounts for 32 per cent to 35 per cent of the total production cost of caustic soda according to the report of the Task Force-III-for Inorganic Chemicals. It is mainly on account of variation in the cost of major inputs *viz.*, salt and electricity that there is wide variation in the cost of production of caustic soda among different units. A cost analysis made for 14 units for the year 1970/71 indicates that the cost per tonne of caustic soda (lye) varied between Rs. 436 and Rs. 925.

2·15 The manufacture of caustic soda being a continuous chemical process, larger sizes give significant technical economics. The Alkali Manufacturers' Association of India has suggested, on the basis of a study conducted by it, that the estimated cost of production for units with a capacity to produce 100, 200, and 300 tonnes per day would be Rs. 1300, Rs. 1176 and Rs. 1134 per tonne respectively. At the same time, as the cost of transporting the products to the consuming units is not negligible, the economics arising from the scale of production have to be balanced against the cost of transporting the product. For this reason, it has been suggested "it might therefore be assumed that under the prevailing conditions the minimum required size for a caustic soda plant would be 100 tonnes per day, with higher capacities to be strongly favoured if a ready market for the products exists in the near vicinity"**. The Government appear new to have decided that all new units to be licensed in future should have a capacity of at least 50 tonnes per day and that units with a capacity of 100 tonnes per day should be preferred. This also implies a policy of encouraging substantial expansion of existing units so that they should reach a capacity of 100 tonnes per day or 33,000 tonnes per annum.

2·16 As mentioned earlier, the process of production inevitably involves the production of chlorine as a co-product of caustic soda. The production of one tonne of caustic soda also simultaneously produces about 0·85 tonnes of chlorine. Gainful utilisation of chlorine is therefore of great importance for the economical and efficient working of the plant. Such utilisation is also of great importance because, if it is not utilised gainfully, special costs have to be incurred for its safe disposal. Chlorine is used for the manufacture of hydrochloric acid, bleaching powder, calcium hypochlorite, potassium chloride, zinc chloride, PVC, BHC, DDT etc. According to the Alkali Manufacturers' Association, the gainful utilisation of chlorine has been rapidly increasing—from 68 per cent in 1968 to 84 per cent in 1971 (also in 1972). This indicates how the economy of caustic soda production is closely related to the proper utilisation of chlorine.

Government Policy

2·17 From time to time the Government has laid down guidelines for processing fresh applications for undertaking the manufacture of caustic soda. As in April, 1973, the main criteria in this regard were as under :†

(i) "Substantial expansion of capacities should be allowed to all parites to enable the units concerned to reach economic capacity and also because expansion can be achieved quickly and at less foreign exchange cost.

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*Report of the Task Force-III for Inorganic Chemicals, para 3.2, constituted by the Steering Group on Chemical and Allied Industries set up by the Planning Commission.

**Development of the Chlor-caustic Soda Industry—suggestions by Alkali Manufacturers' Association of India, Bombay, page 9.

†Letter No. 5/29/73-GH.II, dated July 22, 1973 from the Ministry of Petroleum and Chemicals.

(ii) "The proposals for parties who have substantial captive consumption for setting up new capacity/expanding their capacity for manufacture of caustic soda, should be considered.

(iii) "While licensing additional capacity the need for regional dispersal of the industry should be kept in view.

(iv) "Large House and foreign majority concerns may not be issued Letters of Intent for putting up new undertakings (merchand and/or captive). The other private enterepreneurs and public sector units may be encouraged to participate in the development of the industry".

(v) "Subject to the above, selection of the parties may be guided by the foreign exchange requirements quoted by them for putting up production facilities for caustic soda. Their requirements should be below Rs. 480/- per tonne of caustic soda. This figure of foreign exchange requirement is considered reasonable by the Government.".

CHAPTER III

THE APPLICANT'S CASE

The application

3·01 Hindalco applied on June 29, 1971 to the Central Government for grant of an industrial licence to establish a new undertaking to manufacture caustic soda and its by-products in response to the Press Notificatoin of the Ministry of Petroleum and Chemicals dated March 31, 1971, inviting applications for undertaking the manufacture of caustic soda.

3·02 Caustic soda being one of the essential raw mateirials required in the manufacture of aluminium, Hindalco claimed that it wanted to undertake this production so as to meet the Company's present as well as future requirements from its own production. In the letter enclosing its application for an industrial licence the Company has stated, "caustic soda is one of the essenital raw materials of the aluminium industry, which is a key industry. In our case the indigenous manufacturers are not in a position to meet our requirements in full. We therefore intend setting up a plant of our own for the manufacture of caustic soda and allied products to take care of our requirements" It was also further claimed that the establishment of such a plant would help save to some extent "recurring expenditure of the foreign exchange by way of imports to meet the short fall". Explaining this point further, the applicant Company in a letter dated June 19, 1973, stated : "whenever there is scarcity of caustic soda, which in fact is a regular feature, aluminium production has to be curtailed which, ultimately, creates scarcity in the country of so vital a metal needed not only for the common people's use but for Defence also".

Requirement of Caustic Soda

3·03 It was also stated by Hindalco that almost 0·25 tonne of caustic soda is required for manufacturing one tonne of aluminium, during the public hearing the representatives of the Hindalco stated that the requirement may be nearer 0·20 tonne. On the basis of the actual purchases of caustic soda, it appears that the Company's consumption is about 17 per cent in terms of weight of the aluminium metal. It should be noted in this connection that caustic soda is used in the production process of aluminium for the production of alumina. To the extent that alumina cannot be disposed of except by further processing it into aluminium, one can assume a certain fixed relationship regarding the requirement of caustic soda for the production of aluminium metal. The Company has also suggested that the requirement for caustic soda has been recently increasing as a result of some deterioration in the quality of bauxite available.*

3·04 As Hindalco's production of aluminium has been increasing, its consumption of caustic soda has simultaneously increased. It has gone up from 10,922 tonnes in 1969 to 13,557 tonnes in 1972. While Hindalco produced 78,500 tonnes of aluminium in 1972, it has been licensed a capacity 1,20,000 tonnes and it is claimed that this capacity will be installed by December, 1973. When this capacity is reached at the rate of 0·20 tonnes the requirement of caustic soda will be 24,000 tonnes**. Hindalco, therefore, has applied for approval to the establishment of an undertaking with a capacity to produce 26,000 tonnes of caustic soda per annum. It is also envisaged that Chlorine and other by-products will be produced by the proposed unit as indicated in the table below :—

TABLE VI

Item	Envisaged capacity tonnes per year	Value in Lakhs Rs.
1. Caustic Soda (100% Naho)	26,000	260
2. Liquid Chlorine	13,000	39
3. Hydrochloric Acid (Commercial grade)	20,000	20
4. Stable Bleaching Powder	2,000	20
5. Benzene Hexachloride (BHE)	3,000	36
		375

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*Letter No H/CLB/1/71-72/7885 dated August 20, 1973 from the applicant Company.

**Subsequently, the Company has put its requirement of Caustic Soda at 30,000 tonnes based on an enhanced production of Aluminium of 1,50,000 tonnes (25% above the approved capacity) (Company's letter dated 20-8-1973) This does not materially affect the Commission's findings.

3·05 The unit is proposed to be established near the aluminium plant of the Company located at Renukoot, District Mirzapur (U.P.). The envisaged production of caustic soda will be mainly for captive consumption while by-products will be almost entirely sold in the open market. Since captive consumption of liquid chlorine is very small, the Company intends to utilise chlorine for producing hydrochloric acid, stable bleaching powder and benzene-hexa-chloride for commercial purposes.

3·06 Hindalco went into production in 1962. The caustic soda plant of Kanoria Chemicals, located at a distance of two or three Kms. from the aluminium plant of Hindalco, went into production in September, 1964. The data given in the table below about the source of supply of caustic soda to Hindalco indicate that, from its very beginning, Kanoria Chemicals has been the principal supplier of caustic soda to Hindalco.

TABLE VII

Source of supply of caustic soda to Hindalco (in tonnes)

Name and Address of the supplier	1965	1966	1967	1968	1969	1970	1971	1972
1. Kanoria Chemicals & Industries Ltd., Renukoot	3,705 (100)	4,316 (97)	7,642 (70)	9,550 (61)	10,426 (78)	11,623 (75)	10,451 (69)	11,457 (84·5)
2. Imports Thru' STC	...	...	..	..	..	..	800 (5)	N.A.
3. Saurashtra Chemicals, Porbandar	..	156 (3)	2,059 (19)	594 (38)	1,209 (9)	1,121 (7)	1,273 (9)	981 (7·4)
4. Hukam Chand Jute Mills	..	..	139 (1)	190 (1)	697 (5)	1,249 (8)	506 (3)	63 (0·3)
5. Others	..	..	1,082 (10)	..	1,038 (18)	1,614 (10)	2,201 (14)	1,056 (7·8)
TOTAL :	3,705 (100)	4,472 (100)	10,922 (100)	15,681 (100)	13,360 (100)	15,607 (100)	15,231 (100)	13,557 (100)

Figures in brackets indicate percentages

Source: Applicant Company

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3·07 From almost 100 per cent supply of caustic soda in 1965 and 1966, the proportion of caustic soda Supplied by Kanoria Chemicals to Hindalco has varied between about 70 to 80 per cent. The main exception was in 1968 when the supplies made by Saurashtra Chemicals, an interconnected undertaking of Hindalco, suddenly increased to 38 per cent. It may be noted that in 1972 as much as 84 per cent of the total supply of caustic soda to Hindalco has been made by Kanoria Chemicals. As Kanoria Chemicals is situated very close to Hindalco's aluminium plant, it is possible to obtain caustic soda in the form of lye (liquid). This saves cost on both sides for the conversion of liquid lye into solid or flakes, and the reconversion of these into liquid form for actual use. At the same time, the transport of caustic soda in the form of lye which contains about 50 per cent water is very costly; but the distance is short.

Raw Material for Caustic Soda

3·08 The applicant envisages the annual raw material requirements for the manufacture of 26,000 tonnes of caustic soda and its by-products as under :

TABLE VIII

Name of raw material	Indigenous/imported	Quantity required for full capacity (tonnes)
Commercial Salt ($NaCl$)	Indigenous	46,800
Sodium Carbonate (Na_2CO_3)	,,	1,300
Sodium Sulphate	,,	130
Ordinary Line (50% CaO) for Brine Purification	,,	1,560
Pure Line (95% CaO) for bleaching powder manufacture	,,	1,600
Commercial Benzene	,,	1,200

3·09 All the above raw materials are indigenously available. A small amount of foreign exchange on a recurring basis may however be required for import of mercury and spare parts.

Availability of Power

3·10 According to the U.P. State Electricity Board, the proposed caustic soda unit with a production of 26,000 tonnes per year and consuming 3,500 to 4,000 KWH per tonne at a load factor of 80 per cent would require a load of 15 MW. In terms of energy requirement, it will be 100 million units per year. In its original application, the Company had stated that the power supply would be available either from the UP State Electricity Board or from Renusagar Power Company Ltd. a 100 per cent subsidiary of Hindalco, by expanding its capacity suitably. In its letter to the Commission (dated August 4, 1973) the Company had stated that while they expected that power for the existing plant would be available for the next three years on the same basis as in the past, it was not sure as to how much power will be available from what source for the expanded plant. Regarding the caustic soda plant, the Company had stated that they would start negotiations only after receipt of the Letter of Intent. However, during the public hearing the Company took the stand that it had applied to the Government for expansion of the power capacity of its subsidiary from 135 MW to 385 MW. It was expected that this proposal would be favoured by the Government as it was being made after detailed discussions with the concerned authorities. With this addition to the captive power availability, there would be no difficulty about the power for the caustic soda plant.

Proposed Outlay

3·11 The applicant Company originally submitted a Scheme of Finance indicating a total outlay of Rs. 800 lakhs to be incurred as under :—

	Rs. lakhs
Land	20.00
Building	150.00
Plant & Machinery	630.00
Total	800.00

The Company was asked to give details about the total outlay of Rs. 800 lakhs. In its reply (*vide* its letter dated December 24, 1971) it scaled down the capital outlay to Rs. 600 lakhs. It was further stated that the estimates were based on preliminary enquiries together with the information that the applicant could gather from the existing units. No further details were given. The break-up of Rs. 600 lakhs was given as under :

	Rs./Lakhs
Land	20.00
Building	80.00
Plant & Machinery	435.00
Mercury	65.00
Total	600.00

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Foreign Exchange Requirements

3·12 The applicant has changed the figures related to non-recurring foreign exchange requirements thrice. In the original application, it had indicated the foreign exchange requirements at Rs. two crores without giving any details. Subsequently, this figure was reduced to Rs 1·60 crores (*vide* the Company's letter dated May 14, 1972 (to Rs. 1·25 crores) *vide* company's letter dated July 17, 1972) and finally to Rs. 73·80 lakhs. The last figure has been furnished to the Ministry of Petroleum and Chemicals (a copy of which has been sent to the Commission) in response to the Ministry's letter No. 452/71/CH/II dated April 18, 1973. The details of the foreign exchange requirements, as per the latest statement, are given below :—

Non-Recurring Foreign Exchange Requirements

		Rs. in lakhs
1.	Cost of machinery for caustic soda	15.30
2.	Cost of plant and machinery for Chlorine plant.	13.50
3.	Cost of plant and machinery for HCL plant.	6.30
4.	Cost of Mercury	37.80
5.	*Any other foreign exchange payments envisaged.	0.90
	Total	73.80

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*The Company has taken a small amount of 90,000/- under the head 'any other foreign exchange payment envisaged' towards miscellaneous items for meeting any unforeseen items.

Public Interest

3·13 In response to the query as to how far the criteria laid down under Section 28 of the MRTP Act would be satisfied if the proposal is accepted, the Company (*vide* its letters June 19, and July 27, 1973) has stated as under :

> "It is needless to emphasise that by allowing us to manufacture caustic soda it will surely be in the public interest..........It is a well known fact that, presently, there is acute shortage of caustic soda in the country. The scarcity of caustic soda has created serious problem for the producers for whose process caustic soda is an important raw material. For the manufacture of 1 tonne of aluminium, almost 0.25 tonne of caustic soda, is required. Whenever there is scarcity of caustic soda, which in fact is a regular feature, aluminium production has to be curtailed which, ultimately, creates scarcity in the country of so vital a metal needed not only for the common people's use but for Defence also.
>
> "With the development of indigenous production of aluminium, the imports have been curtailed substantially. However, scarcity of caustic soda has again affected the production which will, ultimately result into more import of the metal, thereby spending precious foreign exchange of the country. Thus, the manufacture of caustic soda will help in augmenting not only the production of aluminium but also help in saving of foreign exchange.
>
> "Due to shortage of caustic soda, aluminium production during January/June 1973 has been only 62443 tonnes in place of 82432 tonnes during July/December, 1972. If we had not purchased 1295 tonnes of caustic soda from market at a price of Rs. 2500 (Appx.) per tonne, against the Association price of Rs. 1500/- (appx.) per ton, there would have been further loss of production of 15000 tonnes of alumina.
>
> "Our present suppliers M/s. Kanoria Chemicals & Industries Limited do not afford us any facilities like price preference, quick supplies, grant of credit etc. We do have difficulties in getting supplies from them in case of disruption in their production for whatever reason. Moreover they are unable to meet our full requirements. They have not even supplied us the contracted quantity.
>
> "The prices of caustic soda due to scarcity have gone up considerably and this has resulted into increase in the cost of end products, i.e. aluminium. By allowing us to manufacture the caustic soda, there will be economy in the cost of production which will be in the common interest of the people of the country. Since our caustic soda plant will be a captive unit, most of the production will be consumed. Whatever surplus will be there, that will be sold in the market by our own sales organisation, which was already have all over the country. This will, ultimately, result in the reduction of price of this particular commodity.
>
> "Since the plant will be located nearer to the Aluminium Plant, the company will save transportation cost considerably. The Company will also be able to save many other common expenses such as overhead, administrative, supervisory and technical persons who are available from the existing plant. As there is increase in cost of production every year, the corresponding increase in cost due to these reasons, in our case, will be less as compared to other producers of caustic soda. Beside, since caustic soda is invariably in short supply the Corporation will be assured of supply.
>
> "Since we shall be treating caustic soda as a separate divison, the supply will be charged at Association prices and thus the consumers of Aluminium are not likely to get any direct benefit therefrom. However, when our caustic soda plant will be put up, there will be regular and uninterrupted supply of caustic soda at Association prices, and the production of Aluminium will be maintained at full capacity and thereby the cost of production will be less".
>
> "The plant will be set up under the supervision of our own highly technical personnel with utmost care and employing latest techniques with a view that cost of production is kept minimum.
>
> "Mirzapur is a very backward area of U.P. By putting up caustic soda plant in this industrially backward area it will definitely improve the community and provide employment opportunities in this area.
>
> "Judging from all the criteria under Section 28 of the MRTP putting up the plant by us is not only justified but very deserving."

Importance of a Captive Source

3.14 At the public hearing the representatives of the applicant company laid emphasis on the point that it was necessary to ensure regular supply of caustic soda if aluminium supplies from Hindalco were to be ensured. Aluminium production being a continuous process, any difficulty about the availability of caustic soda at any time cannot but adversely affect the production of alumina and therefore of aluminiu. The Company's experience, especially in the last few years, was claimed to have indicated the importance of having a captive plant for the production of caustic soda. It was suggested that the failure of Kanoria Chemicals to supply adequate quantities of caustic soda has been responsible in the first half of 1973 for reduced production of Aluminum. The applicant accepted that Kanoria Chemicals had supplied as per the contract but pointed out that Kanoria had to reduce their supplies on account of the large power cut imposed by the U.P. State Electricity Board. This experience had further emphasised the importance of having a captive caustic soda plant. As the applicant Company was now proposing to produce practically all the power required by it by substantially expanding the power plant of its subsidiary, its captive caustic soda plant would not suffer from any such difficulties as were experienced by Kanoria Chemicals and led to reduce supplies of caustic soda. The company's plant would be a thermal one and therefore would be much less liable to a decline in output on account of vagaries of the monsoon which had specially affected power supplies from the UP State Electricity Board. It was also claimed that by producing caustic soda right near the present aluminium plant, the Company would be in a position to save on transport costs which at present amount to Rs. 62 per tonne regarding the supplies from Kanoria Chemicals, and even more in the case of supplies from other sources. It was also claimed that the applicant could be in a position to produce caustic soda more cheaply as compared to the price that it had to pay for supplies at present. It was pointed out that the supply of caustic soda from Kanoria was at the rate of Rs. 120 per tonne, Rs. 100 more than the recommended price of Rs. 1110 fixed by Alkali Manufacturers' Association. It was also claimed that because Kanoria Chemicals could not or would not make available the total supplies required, the company had to make purchases in the open market at exorbitant prices ranging upto Rs. 2,500 per tonne. It was, therefore, claimed that the proposal should be supported in terms of Section 28(a) of the MRTP Act which indicates that production "by most efficient and economical means" should be one of the considerations to be taken into account in considering these cases.

3·15 In essence the applicant's plea is that for ensuring the economical and regular supply of aluminium from their main plants, the availability of captive sources for their principal raw materials is necessary. Bauxite is already being obtained from one of their subsidiaries. Power was up to now being partially obtained from another subsidiary and it is now proposed to obtain the whole power requirements from that subsidiary. It was, therefore, suggested that it would be appropriate to ensure the captive availability of the third most important raw material *viz.*, caustic soda also. Recent experience specially emphasised the importance of having such a captive source. The applicant was not interested in entering the general market for caustic soda. It only wanted a plant which would satisfy captive requirements, It was, of course, admitted that the inevitable co-products and especially chlorine will have to be commercially utilised and the resultant products marketed so as to ensure economical and efficient utilisation of the proposed plant. The Company also stated that if the Govt. considered that the establishment of a plant of a size larger than 26,000 tonnes per annum preferably on grounds of efficiency, they would be willing to go in for larger production and the extra production will be marketed—possibly for exports.

CHAPTER IV

EXAMINATION OF THE PROPOSAL

Comments on the Proposal

4·01 The Commission released a Press Note on October 14, 1971, about the proposal of Hindalco for the manufacture of caustic soda, inviting information from parties which would help the Commission in conducting the enquiry. In response, two memoranda were received, one from an undertaking manufacturing caustic soda and the other from a consumer of caustic soda. Kanoria Chemicals and Industries Ltd., located at Renukoot, which has been meeting over 70% of the annual requirements of caustic soda of Hindalco, has objected to the grant of an industrial licence to Hindalco for the establishment of an undertaking to manufacture caustic soda. Their objections against the applicant's proposal are given below:

1. Messrs. Hindalco fall in the category of larger industrial houses in the country. According to the Industrial Policy of the Government of India, larger industrial houses should go in the production of highly sophisticated items and core industries and in backward areas where other entrepreneurs might find it difficult to operate. Caustic Soda is neither a very sophisticated industry nor a core industry. District Mirzapur in which they propose to set up the caustic soda plant is not a backward district as per list of Planning Commission eligible for facilities regarding finance etc. who have selected as many as 200 districts in the country as backward districts.

2. "The Government of India is following a certain policy with regard to foreign investments and collaboration in India. According to the same foreign collaboration and investment is to be permitted only in those industries where technological gaps still exist in the country.

   "The caustic soda industry was established in the country for the first time nearabout 1938 and commenced production in 1940 and since then we have 29 plants in India with an installed capacity of about 3·90 lakh tonnes and actual production of 3·617 lakh tonnes in the year 1970. The country does not need any foreign collaboration for establishing a caustic soda plant. Rather India is in a position to offer know-how and technical assistance on this industry to other less developed countries and some firms are trying for the same. It is reported that Messrs. Orient Paper Mills Ltd., (a Birla Group of Concern) is setting up a caustic soda plant in Kenya based on Indian know-how.

   Messrs. Hindalco is a concern in which there is foreign equity participation. If they set up a caustic soda plant which will be a new line of manufacture for them, the benefit of the same will also be derived by their foreign partners and will result in a drain on our foreign exchange resources which will be contrary to the declared policy of the Government of India on foreign investments and against our national interest. Further Hindalco have also mentioned in their proposal that their foreign collaborators will have the option to participate to the extent of 26% of any issue of fresh capital that may be involved. This proposal will only lead to make foreigners partners in a new line of manufacture in a simple industry like caustic soda although it is not in the national interest and the government policy is very clear in the matter.

3. "In response to the Government of India Press Note dated 31st March 1971, we understand that the Government has received more than 42 applications for establishment of caustic soda capacity by way of new units and expansion of existing companies. This includes some applications from the Birla group of concerns and larger industrial houses but mostly from other entrepreneurs.

4. "Hindalco proposes to set up a plant for the manufacture of 26,000 tonnes of caustic soda per annum. The Press Note dated 31st March by which the Government invited applications for establishment of new capacity specifically stated that the new units should have a capacity of about 100 tonnes per day with latest technology and their application with a lower capacity is not in accordance with the same. Further due to technological advances and the innovation of high amperage cells the tendency in the world is to put up large plants and some of them are about 5,00,000 tonnes per annum. In India the economic size is at present considered to be 33,000 tonnes per annum but in line with the rapid advances in the world in this industry there is a case for revising our concept of economic size to at least 66,000 tonnes per annum. Hindalco's proposed plant is not even 33,000

tonnes per annum. Further their present actual consumption of caustic soda for manufacture of approximately 78,000 tonnes of aluminium is only about 15,000 tonnes per annum and as such for the manufacture of 1,20,000 tonnes of aluminium their requirement of caustic soda should be only about 22,500 tonnes or less and not 26,000 tonnes per annum.

5. "Chlorine is a co-product of caustic soda which is essentially produced along with caustic soda. In advanced countries what we call caustic soda plants in India are known as chlorine plants as chlorine is considered as more important than caustic soda in developed countries. For each tonne of caustic soda manufactured 0·88 tonnes of chlorine is essentially manufactured. Thus the total production of 26,000 tonnes of caustic soda will result in production of about 22,800 tonnes of chlorine. Whereas caustic soda is said to be required for captive consumption by Hindalco as far as chlorine is concerned their consumption is only about 25 tonnes per annum against a production of about 22,800 tonnes. It is clear that almost the entire chlorine is intended to be sold in the market as liquid chlorine or after conversion as Hydrochloric acid.

6. "Hindalco have also asked for permission to manufacture Benzene Hexachloride (BHC) and Stable Bleaching Powder (SBP). They are both very small and simple plants and require small investments in which no foreign investment or larger house is permitted to operate as per government policy. Further these items are not required by Hindalco for captive consumption. Also the chlorine consumed for the manufacture of these items will be only about 3200 tonnes per annum. It is evident that if Hindalco is allowed to set up this plant in due course it will like to manufacture more and more such items based on chlorine.

7. "You (M.R.T.P. Commission) may be interested in knowing the caustic soda capacities sanctioned by the Government to Birla Group of concerns.

	Name of the concern	Capacity	Remarks	
1.	Century Chemicals, Kalyan (Century Spinning & Manufacturing Co. Ltd)	16,500	18,400	(product in 1970)
2.	Saurashtra Chemicals, Porbandar (Birla Jute Manufacturing Co. Ltd.)	23,300	21,000	,,
3.	Hukumchand Jute Mills, Amlai	14,400	14,700	,,
4.	Sirpur Paper Mills Ltd.	6,000	5,300	,,
5.	Hindustan Heavy Chemicals Ltd., Calcutta	4,200	2,700	,,
6.	Orient Paper Mills Ltd.	3,000	2,500	
7.	Gwalior Rayons, Nagda (Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.)	33,000	Expected to commence production in 1972.	
		1,00,400		

8. "We have a caustic soda factory which is situated close to them at Renukoot, District Mirzapur. Our present installed capacity is 16,500 tonnes per annum but we have been permitted by the Government to increase the same to 33,000 tonnes per annum. The same is under implementation in stages and we expect to achieve a capacity of 33,000 tonnes of caustic soda per annum by end of 1973, (the company has an installed capacity of 33,000 tonnes per annum) and shall be in a position to meet their requirements adequately. Further after receipt of capital goods clearance for our expansion from 16,500 to 33,000 tonnes on 7th October 1971 we have also applied on 25th October 1971 for expansion from 33,000 tonnes to 66,000 tonnes per annum and same is under consideration of the Government".

4.02 The second memorialist, Kalpataru Private Ltd., Mirzapur, has stated that the proposal of Hindalco should be accepted by the Government as Kanoria Chemicals are exploiting their regional monopoly position in the area by charging higher prices through their distributors. Kalpataru Pvt. Ltd. is of the view that with the setting up of another unit in the region, competitive conditions will be created leading to stable prices. In response to the Commission's query, the memorialist, *vide* its letter dated July 10, 1973, has pointed out that "since April 1973 we are getting supplies of acid hydrochloric from M/s. Kanoria Chemicals and Industries Ltd., after prolonged negotiations with their selling agents. Presently we are not facing any problem regarding supplies". However, it has reiterated that "granting of License to M/s. Hindustan Aluminium Corporation Ltd. will be quite helpful in future for development of industry and regular supply".

Comments of Department of Economic Affairs, Ministry of Finance

4.03 In its letter dated July 7, 1971, to the Department of Company Affairs, the Department of Economic Affairs, while commenting on the applicant's proposal, has stated that "this Department sees no reason why a company with 26% foreign capital should take up this project as a division. They may be advised to promote a separate company with not more than 40% interest in its equity". Similar views have been expressed by the Department in its letter dated July 10, 1972 to the Commission.

"We reiterate the earlier view that unless foreign collaboration is considered necessary for the caustic soda plant, H.A.C. (Hindalco) should not be allowed to take up the project as a division. If, however, foreign collaboration is considered essential by the Department of Industrial Development, H.A.C. may be asked to float a separate company with 40% interest in equity capital of the latter. The indirect non-resident holdings in the new company would then work out to 40% of 27% viz., 10·8% only".

Views of Ministry of Petroleum and Chemicals

4.04 The Inter-Departmental Committee in its meeting held on September 25, 1971, to consider the applications received in response to the public notice (March 1971) for grant of industrial licences for manufacture of caustic soda made the following recommendation in the case of Hindalco:

"The firm belongs to a large house. It is operating an aluminium plant in the region which has a large captive requirement of caustic soda. The Committee recommended the application for setting up plant of 26,000 tonnes per annum but did not agree to 26% foreign participation envisaged".

4.05 The Ministry of Petroleum and Chemicals in its note for the Licensing Committee dated December 23, 1971, has opined that "as regards the 16 applications for establishment of new undertakings for manufacture of caustic soda by the (above mentioned) Committee, the Ministry of Petroleum and Chemicals) feels that it is necessary to encourage new entrepreneurs in the field and does not, therefore, support the applications of 5 large houses" which include Hindalco. It has recommended that in place of Hindalco and J.K. Rayon (another larger house which has applied for the grant of an industrial licence to manufacture caustic soda in the State of U.P.) "the Ministry recommends issue of a letter of intent to the U.P. State Industrial Development Corporation". However, Hindalco's application is still "pending for consideration" as per information supplied by the Ministry of Petroleum and Chemicals *vide* its letter dated July 21, 1973.

A Review of objections and comments

4.06 The Commission has examined the objections as well as views of various parties and also of the Government agencies concerned. These were taken into account by the Commission in its examination of the proposal. As regards the objections raised by M/s. Kanoria Chemicals, it should be noted that these were gone into further at the time of the public hearing. M/s. Kanoria Chemicals participated in the public hearing and supplemented their earlier statement. M/s. Hindalco answered some of the points at the public hearing and also made further information available to the Commission regarding certain other objections. The Commission has examined all these statements and counter-statements in so far as they were relevant for the purposes of the Commission.

Basic Issue

4.07 There is no dispute about the fact that aluminium is one of the most important industries in the country and, because of the nature of its production process which is a continuous one, availability of raw materials on a regular and timely basis must be ensured if the supply of aluminium is not to be interrupted and the industry is not to suffer large losses as a result of periodic shutdowns. The essential question which has to be examined is whether taking into account all the circumstances of the case, the only way to ensure adequate and regular supplies of caustic soda to the applicant company is to permit it to set up a special plant for captive consumption.

4.08 In this connection, certain facts have to be kept in view. Firstly, the Chlor-Caustic industry is one of the basic chemical industries and has no technological relationship with the aluminium industry. All the existing aluminium manufacturers in the country are drawing their caustic soda requirements from specialised manufacturers of caustic soda. The Chlor-Caustic industry itself produces two co-products, viz., caustic soda and chlorine almost in equal quantities, and also a number of by-products. The industry has therefore to be equipped to process Chlorine as well as various by-products in various ways so as to avoid the danger from releasing unprocessed chlorine and at the same time making economical use of the various products. It is, therefore, necessary that the function of producing caustic soda should ordinarily be undertaken by manufacturers who specialise in chemical industries. Permitting any unit to enter the production of caustic soda will inevitably lead to its entry into a larger field of the chemical industry. This is unavoidable if the unit is to be operated on economic and efficient lines. The implication of this in the present case is that if Hindalco is permitted to set up a caustic soda unit, this will inevitably lead to its entry in a significant way in the chemical industry.

4.09 The vertical integration backwards for the purpose of producing the raw materials required by an industry need not always be discouraged. There are industries such as steel where the economic and technology of the industry make inevitable a vertically integrated plant which combines the production of pig iron, steel and major steel products under one roof. This is so because hot metal being transported from one stage to another gives very significant advantages by way of cost saving on fuel. Regarding Hindustan Aluminium, it may be observed that it combines under one roof the production of alumina, aluminium and also certain processing of the aluminium metal. One of its essential raw materials, viz., Bauxite has been available to it from its own subsidiary from the inception of the plant. Power, another important raw material in the aluminium industry, has been available from an outside source, viz., the U.P. State Electricity Board for a long time. However, because of the other demands on the power generated and available with the U.P. State Electricity Board, Hindalco was encouraged in the past to set up its own power production units and it appears to have been decided more recently that the power production capacity of its subsidiary should be enhanced sufficiently to enable Hindalco to meet all its power requirements from this source. As already explained earlier, Hindalco's plea now is that it should similarly be permitted to have its own source of obtaining their next important raw material required by it, viz., caustic soda, from its own captive source. This will be specially useful, it is claimed, as power required for the production of caustic soda could be available from the power station of Hindalco's own subsidiary and therefore the production and supply of caustic soda will not be subject either to the vagaries of nature or other causes which may interrupt the supply of power to M/s. Kanoria Chemicals—the principal supplier of Caustic Soda to Hindalco up to now—as has happened in the recent years.

Is Captive Unit Necessary?

4·10 When examining this plea, in addition to the consideration mentioned earlier regarding entry into caustic soda inevitably being linked with a wider field of chemical industry, it is to be examined whether it is inevitable that the source of caustic soda supply to Hindalco must either be a nearby unit like Kanoria Chemicals or a captive unit as proposed. In this connection, it needs to be remembered that caustic soda is available not only in the form of lye when it can only be transported economically over a short distance, but also in the form of flakes or solids. It is true that the conversion of caustic soda to the form of flakes or solids and its reconversion for use in liquid form involves some cost. It is also true that if Caustic soda is obtained from a distance it involves some transport cost. But this cost does not appear to be very large in proportion to the cost of producing aluminium. If caustic soda is to be imported from a distant source such as Bombay or Porbandar to Renukoot, the transport cost amounts to about Rs. 100 per tonne. Normally, the price of caustic soda has recently been around Rs. 1300 per tonne. The effective cost of transporting caustic soda from a distance of two or three kilometres in the form of lye appears to have been Rs. 31 per tonne. Thus the difference in the cost of transportation between nearby and distant sources amounts only to about Rs. 70 per tonne as against the normal price of Rs. 1300 per ton of caustic soda. The cost of caustic soda itself forms only eight per cent of the cost of production of aluminium. It can thus be seen that even if caustic soda has to be obtained from a distance, it would not add to any significant extent to the total cost of production of aluminium. The possibility that the nearby source of caustic soda may sometimes marginally fail because of temporary difficulties, including power shortage, need not therefore mean great hardship to the aluminium plant. What is relevant is not so much the availability of caustic soda from a source near the plant as the availability of caustic soda in the country generally.

4·11 In this context, it may be recalled that our examination of the situation regarding the Chlor-Caustic industry (Chapter II above) showed that, while one cannot be precise in this matter, it appears that the deficit expected in the supply of caustic soda in the Fifth Five Year Plan period is marginal in nature and there is a reasonable likelihood of various plants coming up which would ease the situation even further. It does not therefore appear likely that there would be such a shortage of caustic soda in the country as a whole or that Hindalco would face serious difficulties in producing aluminium. Even when one takes into account the availability of caustic soda from regional units, we find that in view of the capacity of the existing unit, the Letters of Intent issued and pending applications, it is probable that there would be more than enough supply of caustic soda available to Hindalco from nearby sources. Kanoria Chemicals, the present supplier, has already been approved a capacity for producing 33,000 tonnes of caustic soda per year and its application for expansion of capacity by a further 33,000 tonnes per year is under consideration. A few other units may also come up in this line. It is quite probable that not only would adequate supply of caustic soda become available to Hindalco but even that there would be competing sources for such supply which would make Hindalco's position in this respect safer and better.

4·12 It is important to note in this connection that in the Chlor-Caustic industry, as in most chemical industries, considerable economies accrue as a result of larger scale of output. As already indicated earlier, a study made by the Alkali Manufacturers' Association* has indicated that the cost of production would decline significantly when the plant size increases from 33,000 tonnes per annum to 66,000 tonnes per annum. Such economies will arise from various cost factors including the requirements of capital. Thus Kanoria Chemicals have estimated that their expansion from 33,000 tonnes to 66,000 tonnes will involve a capital cost of Rs. 5·05 crores while Hindalco has estimated a capital cost of Rs. Six crores for the proposed capacity of 26,000 tonnes. Further, the utilisation of the co-products and by-products can obviously be most economically and efficiently organised by a larger sized unit. National economic considerations would therefore indicate that for creating further capacity in the Chlor-Caustic industry, preference may be given to specialist manufacturers in that line who will be in a position to establish larger and more economical capacities.

4·13 The main objection of Hindalco to such an approach is that they would not like to be at the mercy of Kanoria Chemicals for the supply of a vital raw material like caustic soda. The obvious answer to such an approach is that this would imply that they should be permitted vertical integration *ad-infinitum*. The production of caustic soda itself requires large quantities of salt and therefore they might then claim that they should be permitted to enter the salt industry to make sure of their salt supplies. This would obviously be an absurd proposition specially in terms of the MRTP Act.

Dependence on Kanoria Chemicals

4·14 The specific objection raised by Hindalco however merits further consideration. They have stated their specific objection to having to rely on Kanoria Chemicals as follows :

> "Due to non supply of caustic soda by M/s. Kanoria Chemicals, our production has suffered to a considerable extent. Not only that M/s. Kanoria Chemicals are not supplying to our full requirement, they are not even supplying the confirmed contracted quantity on one pretext or the other. In the last six months, i.e. from January to June 1973, against our contracted quantity of 6,900 tonnes, they have supplied only 4,243 tonnes. This quantity of caustic soda supplied by M/s. Kanoria Chemicals is far below our normal consumption and is hardly 50% of our requirement. Due to their failure in supplying Caustic Soda to our requirement, we had to reduce the production of alumina to a very considerable extent. In fact, we have lost production of almost 20,000 tonnes of alumina in the last six months. What makes the position still more serious is the reports we get from normally reliable sources that rather than supplying the Caustic Soda to the direct consumer, they sell the same in the open market to the resellers and force the consumer to purchase from the open market at a very high premium rate. In fact, we purchased almost 1,300 tonnes of caustic soda from the open market at an exorbitant rate and have paid even up to Rs. 3,300 per tonne against the price of Rs. 1,110 per tonne fixed by the Alkali Manufacturers' Association of India. Even in the normal course, M/s. Kanoria Chemicals do not supply the material at prices fixed by the Alkali Manufacturers' Association of India but charge an additional Rs. 100 per tonne plus Excise Duty and taxes on that and are taking undue advantage of being the monopoly producers in this area.
>
> "In addition to the extra premium being charged, as mentioned above, they are also charging from us Rs. 62 per tonne on caustic soda by way of handling and transportation charges. We will like to mention that their caustic soda plant is located hardly 2 kms. away from our factory and for transporting the Caustic Lye from this much distance, they charge Rs. 62 per tonne, which is an exorbitantly high and unreasonable rate. Knowingly that this is an exorbitant rate, when we proposed to have our own transport arrangement, they declined to accept the same. In other words with the extra surcharge and exorbitant transportation charges, the price of caustic soda being charged by M/s. Kanoria Chemicals is about Rs. 200 per tonne higher than Association price. This shows how they are trying to take undue advantage of their monopolistic position since caustic soda is in short supply and M/s. Kanoria Chemicals are in a position to dictate their terms being the sole supplier in this area. For the production of aluminium, the selling prices of which are fixed by the Government, it proves very costly to purchase caustic soda from such parties who charge such an exorbitant rate and do not supply at the prices fixed by the Association."†

4·15 There has been much correspondence between the Commission on the one hand and the applicant company and Kanoria Chemicals on the other. Relevant extracts from the correspondence are given in APPENDIX II.

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*Report cited Page

†Letter No. 266-A/3970 dated July 31, 1973 from the applicant company.

4·16 On examining the facts provided by the two parties and also the discussion that took place at the public hearing, the Commission has come to the following conclusions :

It is apparent that M/s. Kanoria Chemicals developed their Chlor-Caustic Unit within a short distance of the aluminium plant of Hindalco taking into account the requirements by the latter of caustic soda in large quantities. The production programme was arranged so that caustic soda in the form of Lye would be made available to Hindalco and this was to the mutual convenience of both parties. When considering the expansion proposal of Kanoria Chemicals, the fact that Hindalco's aluminium capacity is being steadily expanded and that there would therefore be increase in demand for caustic soda, was specially taken note of by different governmental authorities. Hindalco has been a major customer of the caustic soda production of Kanoria Chemicals as will be indicated from the following table*:

TABLE IX

Year	Production of Kanoria Chemicals Caustic Soda (Tonnes)	Supplies as a % of production to		
		Hindalco	Indalco	Others
1968	18,425	52·0	——48·0——	
1969	17,264	60·6	26·7	12·7
1970	18,038	64·6	21·2	14·2
1971	17,737	59·0	23·5	17·5
1972	20,603	55·6	15·1	29·3
1973 (Jan-July)	11,328	42·1	10·4	47·5

*It relates to both Hindalco & others.

4·17 Hindalco itself has relied to a substantial extent for its requirements of caustic soda on supplies from M/s. Kanoria Chemicals. This is indicated from the figure given in Table VII above (Chepter III). It appears that, except in the year 1968, more than 3/4th of the caustic soda requirements of Hindalco have usually been obtained from Kanoria and, even in 1972, over 84% of the caustic soda requirements of Hindalco were met by supply from Kanoria.

4·18 From the data made available to us by both parties, it appears that some differences arose between them and this has created a certain degree of lack of confidence in each other. In 1968, when there was a temporary position of glut in the caustic soda industry, Hindalco suddenly increased its purchases from Saurasthra Chemical, an interconnected undertaking to 38%. This resulted in a significant reduction in the percentage obtained from Kanoria Chemicals—though in absolute terms the quantity purchased increased even in that year. It appears that to some extent this may also have been due to the offer of lower prices by Saurashtra Chemicals, an offer which was not matched by Kanoria. The real difficulties arose in the second half of 1972 and have persisted upto now. The failure of rainfall in the catchment area of Rihand Dam resulted in significant power cuts by the U.P. State Electricity Board to all major industrial consumers and this affected both Hindalco and Kanoria. Kanoria Chemicals reduced their supply of caustic soda to Hindalco, as provided for in the contract between Kanoria Chemicals and Hindalco, in proportion to the power cut imposed by the U.P. State Electricity Board. It has been alleged by Hindalco that in the first half of 1973, the reduced supply of caustic soda was responsible for a significant reduction in their production of alumina and therefore of aluminium. The data provided by Hindalco in support of this contention is as follows :

	July/Dec., 1972 MT	*Jan./June, 1973* MT
(a) Aluminium production	82,432	62,443
(b) Caustic Soda purchased	7,020	5,740
(c) Caustic Soda consumed	7,534	5,650

It was also pointed out by Hindalco that because of the reduced supply by Kanoria Chemicals, they were forced to go to the market and purchase 1,295 tonnes of caustic soda at an average cost of Rs. 2,505 per tonne which is far in excess of the normal price. This was on of the main points put forward by Hindalco at the public hearing in favour of their being permitted to set up a captive plant for the supply of caustic soda.

4·19 While it is appreciated that the inadequate supply of caustic soda would have created apprehensions in the mind of Hindalco management which forced them to go in for market purchases

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**Source:*—Kanoria Chemicals Industries Ltd.

at high prices, the data provided by them is not adequate to support the contention that it was the shortage of caustic soda which was primarily responsible for the inadequate production of alumina in the first half of 1973. It cannot be overlooked that the production of alumina is merely an intermediate stage for the production of aluminium and the latter is a highly power intensive process. The severe power cut imposed by the U.P. State Electricity Board on Hindalco could not but have affected the aluminium producing capacity of Hindalco, and its production of alumina would be largely dependent on the extent to which the alumina produced could be converted into aluminium. In this connection, it should also be noted that in its annual report for the year 1972 the company had stated, "The working during the year (1972) was seriously affected due to perennial power shortage combined with the serious drought conditions as a result of which a 25 per cent power cut was imposed on the plant by the U.P. State Electricity Board since August 1972." It was further stated that "the power cut was further increased — 40 per cent in February 1973 and 50 per cent from March 1973, the effect of which will be reflected during the current year." According to a recent statement issued by the company and reported in the newspapers; "The power shortage has reduced production of Hindustan Aluminium Corporation Ltd., from 220 tonnes to 100 tons a day, rendering almost half the production capacity idle..........the 50 per cent idle capacity is in addition to the 15,000 tons newly expanded capacity which has been lying unused for about a year for want of power."*

4·20 It may be noted that no mention was made in this statement to the inadequate supply of caustic soda being the principal or even a major factor responsible for the cut-back in production. While this is not a conclusive argument one way or the other, it would suggest that the reduction in the supply of caustic soda in the first half of 1973 does not appear to have been the principal factor responsible for the difficulties in aluminium production faced by Hindalco in that period.

4·21 In its letter dated July 31, 1973, Hindustan Aluminium alleged that "they (Kanoria Chemicals) are not able to supply the confirmed contracted quantity on one pretext or the other." However, during the public hearing the representative of the applicant company stated that there had been no breach of contract as such on the part of Kanoria Chemicals since the contract provides for reduced supplies to Hindalco on account of a power cut imposed by the UP State Electricity Board. While Kanoria Chemicals has thus made the supplies according to the terms and conditions of the contract to Hindalco in the current year, it may be that their attitude has not been particularly helpful. An analysis of the sales and production data furnished by Kanoria Chemicals shows that the supplies to Hindalco have gone down from 55·6% of its total annual production in 1972 to 42·1% in the first seven months of 1973. There has been a similar fall in the case of Indian Aluminium Company Ltd., which is another leading customer of Kanoria Chemicals. Correspondingly the share of 'other' customers has gone up quite substantially during the last two years.

4·22 It would not therefore be wrong to say that Kanoria Chemicals has not been very helpful and this did create a situation of shortages and uncertainty for Hindalco. The Commission, while taking note of this position, expects that when the severe power cut imposed on Kanoria Chemicals is removed, and particularly keeping in view the expanded capacity of 33,000 tonnes given to Kanoria Chemicals, the supply to Hindalco is likely to improve. Besides, Hindalco can make long term arrangements with Kanoria Chemicals to ensure smooth and adequate supplies of caustic soda to meet its requirements. Hindalco can have similar long term contracts with other manufacturers of caustic soda in the country if it feels that it cannot depend on any one source of supply. There would be enough sources of caustic soda in the country, some of them assumed as inter-connected with Hindalco, to avoid its having to depend only on Kanoria Chemicals. The temporary difficulties experienced by Hindalco in the last year and a half do not provide adequate ground to suggest that regular and economic supply of caustic soda to Hindalco cannot be ensured without permitting it to set up a captive caustic soda plant.

Guidelines of section 28

4·23 It was claimed on behalf of the Company that the proposal satisfied among others the consideration indicated in section 28(a) of the MRTP Act, viz., "to achieve the production, supply and distribution, by most efficient and economical means, of goods of such types and qualities, in such volume and at such prices as will best meet the requirements of the defence of India, and home and overseas markets." It was pointed out that however small, the saving in transport cost because of the production of caustic soda almost next to the alumina plant will make for a more efficient and economical means of producing aluminium. In this connection, it should be noted that the advantage which would arise out of the possible small saving in transport cost has to be matched against the disadvantage arising out of an uneconomical or less efficient unit of production. We have already indicated earlier that a specialised chemical producer such as Kanoria Chemicals which is already in the process of producing 33,000 tonnes and is intending to expand its capacity to 66,000 tonnes is likely to obtain significant economies of scale not merely in the production of caustic soda but also in the better utilisation of the co-product and by-products. The consideration indicated in section 28(d), *viz.*, "to effect technical and technological improvements" is more likely to be achieved by specialised producer in the chemical line than by a producer who is a specialist in aluminium production taking to production of chemicals merely because he requires a chemical product as a raw material. Moreover, it should not be averlooked that the Kanoria Chemicals' plant is only at a distance of two or three kilometers from Hindalco plant and the saving in the real transport cost is therefore not likely to be material.

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*The times of India, August, 22, 1973 p. 6. Also See The Economic Times, August 21, 1973 p. 6.

4·24 It has also been suggested that the proposal is for a location in a backward region, namely, the district of Mirzapur, and therefore, it should be supported under section 28(g) viz. "to reduce disparities in development between different regions and more especially in relation to areas which have remained markedly backward." In addition to the fact that the district of Mirzapur is not one of the districts designated as a backward district by the Planning Commission, it should be noted that it is not unlikely that if Hindalco is permitted to develop this plant, the demand for the product of the other caustic soda factory in the same district is likely to decline at least for a certain period of time. There are enough data to indicate that Kanoria Chemicals and Hindalco are in many respects complementary to each other and the former depends on the latter to a significant extent for the off-take of its output of caustic soda. If that outlet for sale is closed, it is not unlikely that it would take some time before other markets are established. In the meanwhile, production and employment in the existing factory of Kanoria Chemicals may suffer. On the other hand, if the demand for caustic soda justifies setting up of further capacity of caustic soda in this district, as already indicated earlier, it would be better to permit a specialist producer like Kanoria Chemicals to set it up. It does not therefore appear that the proposal can be supported on this ground.

4·25 There is another aspect regarding the organisation of Hindalco which also merits consideration in this context. Hindalco has 26 per cent of foreign equity and, under the terms of the collaboration agreement, any additional equity proposed to be issued has also to be shared by the foreign shareholders in the existing proportion. In any case, the advantage of the addition to capital assets and the resultant profitability will be shared in a proportionate manner by the foreign investors. Caustic soda is an industry which is well established in India by now and no foreign technical know-how or any other assistance is necessary for the development of this industry. There is, therefore, no reason why the foreign shareholders should be permitted to participate in the development of a unit which can be set up entirely on the basis of Indian capital and Indian know-how. This in our view is an additional reason for disfavouring the present proposal.

4·26 In this connection, it should also be noted that, as already mentioned in Chapter I above, the company has accepted that it may be assumed to be interconnected with 25 other undertakings mentioned there for the purpose of disposal of the present application. On this assumption the Company appears to be not only a very large undertaking by itself but, together with these interconnected undertakings represents a very large concentration of economic power. The aim of the MRTP Act has been stated as to be as follows :—

> "that the operation of the economic system does not result in the concentration of economic power to the common detriment."

One the guidelines under section 28 reads as follows :—

> "to encourage new enterprises as a countervailing force to the concentration of economic power to the common detriment."

Taking into account the implications of this guideline, it is clear that encouragement of new enterprise in the Chlor-Caustic industry would be more appropriate than encouraging an existing and a very large enterprise to take up the production of caustic soda and other related products. This guideline would indicate that unless there are overwhelming reasons to the contrary in terms of other guidelines, Section 28 does not suggest that the proposal should be approved. Incidentally, it may also be mentioned that the Government itself has decided in respect of the development of Chlor-caustic industry that further development in this industry need not take place under the auspices of Larger House. (Vide letter No. 5(29)/73-CH. II dated July 22, 1973 from the Ministry of Petroleum and Chemicals).

4·27 Taking all the facts and analyses mentioned above, the Commission has come to the conclusion that the present proposal does not deserve to be supported. In view of this finding the Commission is not going into a detailed analysis of the Scheme of Finance suggested by the applicant Company.

CHAPTER V

CONCLUSION AND RECOMMENDATION

Our examination of the proposal made by Hindustan Aluminium Corporation Limited for establishing a new undertaking to manufacture caustic soda and other related products shows that the proposal cannot be supported in terms of the objectives and the considerations indicated in section 28 of the Monopolies and Restrictive Trade Practices Act. It does not appear to us that the applicant's requirements of caustic soda cannot be met except by setting up a captive unit for the production of caustic soda. At the same time, specially taking into account the assumption regarding the interconnection of the applicant undertaking with 25 other undertakings and also the fact that there is 26 per cent foreign equity in the share capital of the applicant Company, it is our view that approval of the proposal would not be in consonance with the following specific guideline of the MRTP Act under Section 28 *viz.*, "to encourage new enterprises as a countervailing force to the concentration of economic power to the common detriment." The Commission therefore does not recommend the approval of the proposal.

(Sd.)	(Sd.)	(Sd.)
(H. K. PARANJAPE)	(D. SUBRAMANIAN)	(J. L. NAIN)
Member-II	*Member-I*	*Chairman*

APPENDIX I

Broad Shareholding Pattern of Hindalco

1. *Total number of equity shares and other shares carrying voting rights :*
   Total No. of Equity Shares as on 31-12-70 · · · · · · · 80,37,943

2. *Analysis of shareholding as on 1-1-71 :*

(a) L.I.C., Public Financial Institutions, Nationalised Banks and Insurance Companies

L.I.C.	1,00,768	
Unit Trust of India	13,534	
Indian Guarantee & General Insurance Company Limited	35,000	
I.C.I.C.I.	37,521	
India Reinsurance Corpn. Ltd.	9,545	
The New India Assurance Co. Ltd.	62,000	
The New Great Insurance Co. of India Ltd.	5,010	
Ruby General Insurance Company Ltd.	25,412	
South India Insurance Co. Ltd.	10,080	
Vulcan Insurance Company Ltd.	2,612	
Dena Bank, Bombay	3,350	
Central Bank of India, Bombay	50,506	
Union Bank of India, Bombay	2,460	
TOTAL	3,57,798	(4·45 %)

(b) Members of the 'group' along with their relatives.

Shri Aditya Vikram Birla	10,251	
—do—	24,000	
Smt. Anusuya Devi Taparia	4,440 2,000	
Shri B.K. Birla	3,700 6,060 4,622 20,000	
Shri B.L. Newar	3,600	
Shri Babu Lal Newar	9,150	
Shri Basant Kumar Jhawar	3,350	
Shri Bharat Kumar Tapuria	2,040	
Smt. Jayashree Mehta	4,448	
Smt. Jyotana Poddar	6,100	
Shri K.K. Birla	17,970 1,000	
Shri Lakshminiwas Birla	13,400	
Shri M.P. Birla	7,250 79,000	
Smt. Laxmidevi Newar	4,350	
Smt. Kamala Devi Mantri	6,250	
Smt. Rajshree Birla	6,700	
Smt. Sarala Birla	24,000	
Smt. Sheela Newar	5,400	
Smt. Sumangla Birla	2,600	
Smt. S.K. Birla	1,000	
Shri D.P. Mandelia	2,680	
TOTAL	2,75,368	(3·4 %)

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(c) Inter-corporate investments controlled by the 'Group'.

Aditya Investments Pvt. Ltd.	15,410
—do— (through Canara Bank Calcutta)	5,000
East India Investment Co. Ltd.	13,000
Industrial Trust Ltd.	34,500
Jayant Investment Corpn. Pvt. Ltd.	36,180
—do— (through UCO Bank, Calcutta)	50
Jiyajee Rao Cotton Mills Ltd.	3,26,893
Kamal Trading Co. Pvt. Ltd.	13,383
Pilani Investment Corpn. Ltd.	3,46,162
The Punjab Produce & Trading Co. Ltd.	8,894
Shekhawati General Traders Ltd.	5,650
Sutlej Cotton Mills Ltd.	9,39,992
—do— (through UCO Bank, Calcutta)	50,000
Sutlej Cotton Mills Supply Agency Ltd.	1,61,336
Godavari Corpn. Ltd. (through UCO Bank, Calcutta)	67
Asian Distributors Ltd. (through UCO Bank, Calcutta)	134
TOTAL	19,56,651 (24.34%)

(d) Shares controlled by the 'group' although registered in the names of trusted employees/banks/registered societies/trusts along with reasons indicating control.

(i) Shri A. L. Goenka 4,340

Shr iGoenka is a trusted employee of the 'group' as would be seen from the details given in item (1) of Annexure 'E' relating to M/s. Birla Bros. Pvt. Ltd. The shares in question are held by him on behalf of Mahadevi Birla Memorial Charity Trust Shares are, therefore, considered as controlled by the 'group'

(ii) Shri Babu Lal Biyani 8,300 12,391 5,480

Shri Biyani is a trusted employee of the 'group' as would be seen from the details given in item (1) of Annexure 'E' relating to M/s. Kamal Trading Company Pvt. Ltd. he held 8,800, 12391 and 5480 shares of M/s. Hindustan Aluminium Corporation Ltd., on behalf of Aditya Vikram Birla Family Trust, Birla Academy of Art and Culture, and Kumaramangalam Birla Trust respectively. All these trusts are controlled by the 'group'. These shares are, therefore, considered as controlled by the 'group'. It may be mentioned here that M/s. Birla Academy of Art and Culture had granted proxies in favour of Shri A.V. Birla/B.B. Khaitan for the Annual General Meeting of M/s. Hindustan Aluminium Corporation Ltd. which was held on 7-6-71.

(iii) Birla Institute of Technology & Science, Pilani. 2,37,414

This Institute. has been considered as controlled by the 'Group'. The shares in question are, therefore, considered as controlled by the 'group'.

(iv) Shri K.P. Singni 3,500

He is the President of M/s. Sirpur Paper Mills Ltd. and Senior Executive in M/s. Orient Paper Mills Ltd. He is also a trustee in Shashi Kant Trust, a trust controlled by the 'group'. He is a trusted employee of the 'group' and is holding these shares on behalf of Pilani Foundation, another trust controlled by the 'group'. The shares in question are, therefore, considered as controlled by the 'group'

(v) United Commercial Bank, Calcutta 1,000 1,550 3,082 9,849 29,609

The Bank has intimated that 1000, 1550, 3082, 9849 and 29609 shares were held by them on behalf of Sukriti Trust, Viswa Mangal Trust, Manjushree Charity Trust, Jaya Shree Charity Trust and Birla Academy of Art and Culture respectively. All the aforesaid trusts are controlled by the 'group' and as such the shares held on their behalf are considered as controlled by the 'group.

TOTAL 3,17,015 (3·94%)

(e) Foreign Collaborators.		
M/s. Kaiser Aluminium Chemicals Corpn. (USA)	19,82,530	
M/s. Kaiser Aluminium & Technical Services (USA).	1,60,800	
TOTAL	21,43,330	(26·67%)
3. *Percentage of voting power controlled by the group* 2(*b*) + 2(*d*).		
2(b)	2,75,368	
2(c)	19,56,651	
2(d)	3,17,015	
TOTAL	25,49,034	(31·71%)

Source:—The Final Report on Birla Interconnection by the Director of investigation, 1973.

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APPENDIX II

Extracts of letters received from Hindustan Aluminium Corporation Ltd., and Kanoria Chemicals Ltd.

1. *Extracts of letters dated July* 31, 1973 *from Hindalco.*

Our Aluminium Plant, where we propose to put up the Caustic Soda Plant, is 100 miles in the interior in Mirzapur District and is a very remote place. This area is backward both in respect of industry as well as economic conditions and setting up of the new plant will provide employment opportunities to the people of this area and improve their economic conditions. Mirzapur may not be in the list of 200 backward districts, but it is a known fact that this is one of the most backward areas adjacent to the backward areas of Madhya Pradesh and Bihar. Besides, since the production is for our own consumption and not with the intention of entering into the business of Caustic Soda, the very objection that the plant is not being proposed in industrially backward area does not stand. We are surprised M/s Kanorias contending that even it is not a backward area since if this were so, we wonder why M/s Kanoria Chemicals should be allowed to put up the Caustic Soda plant in this area. If, according to their views, this area is not backward, then their proposed expansion should be in some other backward area and not here.

For the setting up of Caustic Soda Plant, there is no proposal for issue of any additional capital: hence M/s Kanoria Chemicals' objection do not stand. Moreover, the foreign participation in equity is of very low percentage, and since devaluation of Rupee, the dividend income of the foreign collaborators after deduction of Income Tax, in terms of Dollars, had automatically greatly reduced. As the proposed plant will be a captive plant, M/s Kanoria Chemicals' objection has no relevance since the foreign share-holders will be getting only dividend in the normal course of business and there is no additional drain on foreign exchange with the amount of dividend paid in the normal course. In fact, in view of Government already allowing expansion of the Aluminium capacity from 60,000 tonnes to 120,000 tonnes involving expenditure of about Rs. 50 crores, this contention becomes meaningless. Primarily, the proposal is for the production of Caustic Soda, which will be consumed for the manufacture of aluminium. The items like chlorine, benzene hexachloride, hydrochloric acid etc. are only the bye-products. There is acute shortage of all these items in the country and it will not be a reasonable proposition to waste the by-products. Hence, once the Caustic Soda plant is commissioned, these by-products will be supplied tothe small industrial units which can be developed in this area and which will be consuming these items has their raw material. This will further help the industrial development of this area and provide not only employment opportunities to this industrially backward area, but will also bring prosperity to it.

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Due to non supply of Caustic Soda by M/s Kanoria Chemicals, our production has suffered to a considerable extent. Not only that M/s Kanoria Chemicals are not supplying to our full requirement they are not even supplying the confirmed contracted quantity on one pretext or the other. In the last six months i.e. from January to June 1973, against our contracted quantity of 6,900 tonnes, they have supplied only 4,243 tonnes. This quantity of Caustic Soda supplied by M/s Kanoria Chemicals is far below our normal consumption and is hardly 50% of our requirement. Due to their failure in supplying Caustic Soda to our requirement, we had to reduce the production of alumina to a very considerable extent. In fact, we have lost production of almost 20,000 tonnes of alumina in the last six months. What makes the position still more serious is the reports we get from normally reliable sources that rather than supplying the Caustic Soda to the direct consumers, they sell the same in the open market to the resellers and forced the consumers to purchase from the open market at a very high premium rate. In fact, we purchased almost 1,300 tonne of caustic soda from the open market at an exorbitant rate and have paid even upto Rs. 3,300/-per tonne against the price of Rs. 1,110/-per tonne fixed by the Alkali Manufacturers' Assn. of India. Even in the normal course, M/s Kanoria Chemicals do not supply the material at prices fixed by the Alkali Manurfacturers' Assn. of India, but charge an additional Rs. 100/- per tonne plus Excise Duty and taxes on that and are taking undue advantage of being the monopoly producers in this area. In addition to the extra premium being charged, as mentioned above, they are also charging from us Rs. 62/- per tonne on Caustic Soda by way of handling and transportation charges. We will like to mention that their Caustic Soda plant is located hardly 2Kms. away from our factory and for transporting the Caustic lye from this much distance, they charge Rs. 62/- per tonne, which is an ex-orbitantly high and unreasonable rate. Knowingly that this is an exorbitant rate, when we proposed to have our own transport arrangement, they declined to accept the same. In other words with the extra surcharge and ex-orbitant transportation charges, the price of Caustic being charged by M/s Kanoria Chemicals is about Rs. 200/ per tonne higher than Association price. This shows how they are trying to take undue advantage of their monopolistic position, since Caustic Soda is in short supply and M/s. Kanoria Chemicals are in a position to dictate their terms being the sole supplier in this area. For the production of aluminium, the selling prices of which are fixed by the Government, it proves very costly to purchase Caustic Soda from such parties who charge such an exorbitant rate and do not supply at the price fixed by the Association.

Ours is a primary aluminium manufacturing unit for which Caustic Soda is a very important raw material and it will not be desirable that we remain dependant only on one supplier. For any interruption in their production, for whatsoever reason, our supply is reduced and this forces us to go to the open market for purchases at an exorbitant rate. This irregular and short supply reduces our production considerably and disturbs the entire system.

NOTE:— This letter was received in reply to the Commission's letter dated July, 1973 intimating the Company the gist of the objections raised by Kanoria Chemicals and Industries Ltd.

2. *Extracts of the letter dated August* 12, 1973 *received from Kanoria Chemicals & Industries Ltd.*,

It may be mentioned that the various points raised by Hindalco in their letter of 31st July 1973 came up for discussions at the time of public hearing on 9th instant. Shri Desai on behalf of Hindalco admitted before the Commission that the Agreement for the supply of caustic soda from Kanorias specifically provided a clause for proportionate reduction in supplies on account of Power Cut and that Hindalco's supplies have only been cut to the extent of power cut in U.P. i.e. 25% cut from August 1972 and 40% cut from February 1973. It was admitted by Hindalco that Kanorias have been regularly supplying to them the quantity contracted in full and the proportionately reduced quantity after the Power Cut in July 1972 and that Hindalco have no grievance against Kanorias on that account. We believe that it was clearly understood that Hindalco's allegations and aspertions contained in the said letter against Kanoria stand withdrawn.

We also enclose herewith a Chart showing the contracted quantities and supplies of caustic soda made to Hindalco during the last five years. This chart is marked Annexure (A). It shows that Kanorias have maintained steady supply of contracted quantities of caustic soda to Hindalco save and except during the years 1972 and 1973 when contracted quantities were pro rata reduced as per terms of the agreement on account of the imposition of the Power Cut by the State Govt. under DIR.

On October 21, 1967 vide our letter No. KC/Sales/9814 we enquired from Hindalco as to their requirement of caustic lye during the calendar year 1968 in order to plan our sales for this period. In reply, they intimated that their requirement during the said period will be @1100—1200 tonnes per month vide their letter No. RM-20/957 dated 26th October 1967. However, Hindalco reduced their purchases from us to about 700 tonnes per month from April 1968 to October 1968 as there was a glut in the supply position of caustic soda at that time. In fact, they took only 700 tonnes per month. Even this 700 tonnes was accepted by them after great persuasion and request by us. During this period, Hindalco increased their purchases from Saurashtra Chemicals, Porbander, which is a unit of Birla Jute Mfg. Co., one of the Companies with which it has admitted interconnection for the purposes of this application.

Significantly, in 1971, at the time when Hindalco made this application for establishing a caustic soda plant, there was no shortfall in the supply position of caustic soda. The complaint that they are presently not able to get their caustic soda requirements is due merely to the fortuitous circumstance of the unprecedented power crisis which arose after the application was made. This ground is obviously an afterthought.

Hindalco have stated that their production of alumina has suffered in 1973 due to non-supply of caustic soda by Kanorias. It is regretted that they have not placed the true facts before the Commission. Kanorias have regularly supplied the quantities as contracted and this the learned Counsel for Hindalco had to admit and concede at the hearing on 9th of August. Moreover, Hindalco should have shown the effect of the alleged non-supply of caustic soda from Kanorias on their production of aluminium metal as alumina is only an intermediate product for the production of aluminium. In fact, Hindalco have had surplus production and have maintained stocks of alumina which is also given occasionally to Indian Aluminium. There was a Power Cut in U.P. from 6th August 1972 at 25% which was increased to 40% from 8th February 1973 and to 50% from 1st March 1973 in case of Hindalco. To the extent they draw their supplies from U.P. State Electricity Board (their agreement is for 55 MW) their production was bound to suffer. This Power Cut would proportionately affect their production of aluminium and consequently their requirement of caustic soda.

In any case, as far as supplies of caustic soda from us is concerned, Hindalco was aware of the contracted quantities receivable by them from us after the power cut. Further, they command through their interconnected firms quite a sizeable production of caustic soda. From one of these firms they had also made purchases at the time of depression in the past as indicated above.

Hindalco's consumption of caustic soda is @17% of aluminium metal and on this basis their requirement even on a capacity of 80,000 tonnes should be 13,600 tonnes per annum, without taking into account the severe Power Cut. This requirement will increase to about 16,200 tonnes per annum as and when additional power is made available to them for producing 95,000 tonnes of aluminium per annum. Even when Hindalco's capacity is raised to 1,20,000 tonnes per annum for which some further sanction of Government regarding import of necessary equipments etc., would be required their caustic soda requirements would be about 20,400 tonnes per annum. If Hindalco are permitted to manufacture 26,000 tonnes of caustic soda as per their application they would have a surplus of about 5,600 tonnes available for sale. If they are permitted to manufacture 33,000 tonnes per annum the surplus available for sale would increase to about 12,600 tonnes per annum.

It would thus appear that Hindalco, if it is permitted to instal an economic plant of 66,000 tonnes, would have a staggering surplus of about 45,600 tonnes of caustic soda available for sale. The theory of the plant only for captive consumption thus falls to the ground.

If 26,000 tonnes of caustic soda is manufactured about 22,800 tonnes of chlorine will necessarily be produced. Of the said quantity of 22,800 tonnes of chlorine only a fraction is proposed to be utilised by Hindalco. Their present consumption of chlorine is about 25 tonnes per annum and even the manufacture of Benzene Hexa Chloride and Stable Bleaching Powder will only consume about 3200 tonnes of chlorine, thus leaving a surplus of about 19,000 tonnes of chlorine per annum. If they are permitted to have a caustic soda plant of 33,000 tonnes or 66,000 tonnes per annum there will be a consequential increase in the production of chlorine. To utilise this surplus chlorine, Hindalco will either have to establish a large chemical complex for manufacture of items such as PVC, Chlorinated pesticides, Chlorinated Hydro carbons, Chlorobenzene and Toulene etc., or in the alternative incur heavy recurring expenditure in neutralising its poisonous effect.

As regards the surcharge of Rs. 100/- the prices indicated by the Alkali Manufacturers' Association are on the basis of average cost of production of member-units. The present rates are based on the returns of cost of raw materials submitted by the member-units pertaining to the period July-September 1972. Salt is the essential raw material for the manufacture of caustic soda and a majority of caustic soda manufacturing units are situated near the salt producing areas. The factories situated in the eastern and central region of India have to bear a higher cost per tonne of salt. Presently, five factories viz.

1. Hindustan Heavy Chemicals Ltd.,
   Khardah (Calcutta)
2. Jayshree Chemicals Ltd.,
   Ganjam (Orissa)
3. Alkali & Chemicals Corpn. of India Ltd.,
   Rishra (Calcutta)
4. Kanoria Chemicals & Industries Ltd.,
   Renukoot (U.P.)
5. Hukumchand Jute Mills Co. Ltd.,
   Amlai (Madhya Pradesh)

are situated in this region which manufacture caustic soda entirely for regular sale in the market. The average landed cost of salt for the industry, as a whole, as worked out by the Association is Rs. 87.84 per tonne although the individual cost of salt of member-unit varies from Rs. 35 to Rs. 158.62 per tonne. The landed cost of salt for our factory as in July to September 1972 was Rs. 137·98 per tonne as compared to the Association's average of Rs. 87.84 per tonne i.e. a difference of Rs. 47.14 per tonne. As per norms adopted by the Association 1.91 tonnes of salt is required for the manufacture of one tonne of caustic soda and as such the incidence of cost of salt in our case would amount to Rs. 257.81 as compared to the Industry's average of Rs. 167.77 i.e. Rs. 90.04 higher.

We would like to add that out of our landed salt cost of Rs. 134.98 per tonne the price of salt does not exceed Rs. 30/- per tonne and the balance cost is on account of transportation. Thus instead of the consumers transporting caustic soda from factories situated near salt we are transporting salt to larger distances and making available supplies of caustic to them in our region.

According to Hindalco we are charging Rs. 62/- per M.T. as transport charges for a short distance of 2 KM only. This is a misleading statement. In fact under our contract with Hindalco we charge only Rs. 15/- per tonne of lye as transport charges. Since caustic soda lye consists of only about 48% NaoH the transport of one tonne of 100% NaoH involves the transport of 2:1 tonnes of lye and the cost thus works out to about Rs. 31/- on 100% NaoH. The contract also provides for delivery charges @Rs. 15/- per tonne of lye. This will also work out to about Rs. 31/- per tonne in terms of 100% NaoH. The distance by road between our factory and Hindalco is about 3½ Km but the same is not so important in view of the fact that considerable time of the truck is consumed in loading, unloading sampling, analysis by both factories and other excise formalities etc. and the period for which the truck is engaged for each trip becomes the dominant factor.

Further lye has to be transported in special tankers and once they are mounted on the trucks, same cannot be used for any other purposes. Maintenance charges on such tankers are also very heavy as they require regular cleaning, painting etc. These charges further are, inter alia, to cover the cost of delivery, losses at the time of filling and in transit, payment of overtime, risk of accident on damage during transit etc.

In view of our responsibilities of delivery and transport of caustic soda to Hindalco we have to keep the very close supervision and strict vigilance so that the risks undertaken by us do not involve us into any huge losses. As a matter of fact, the nature of risks carried is such that inspite of the best of our efforts during the last few years we have compensated Hindalco to the tune of Rs. 20,000/- or more per year on account of our transport and delivery charges.

We would like to submit that we undertake the transport and delivery of our products not to make any profits on the same but as a measure of prudent business. The manufacture of caustic soda involves the use of mercury in the cells which is constantly handled by the workers. At present according to the market value about Rupees One Crore worth of mercury is in the cell house and strict security measures have to be enforced. We do not, therefore, wish to give access to persons not within our control in the factory premises. Further our undertaking delivery at customers' plant helps to promote harmonious business relationship and minimise the scope for complaints or the risk of accumulation of stocks.

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ANNEXURE 'A'

Kanoria Chemicals & Industries Ltd.

Chart showing contracted quantities and supplies of Caustic Soda made to Hindalco

Period	*Quantity*	*Supplied*	*Excess/Deficit*	
	M.T.	M.T.	M.T.	
1969 (Dec. 68 to Dec. 69) . .	11700	11,357	—	343
1970	11,400	11,645	Plus	245
1971(a)*	10,200	10,459	Plus	259
1972	11,361*(b)	11,457	Plus	96
1973 (Jan. to July) . . .	5,002*(c)	4,983	—	19

REMARKS

*(a) Hindalco's application for licence for Caustic Soda was made in June 1971.

*(b) Although the contract was for 12750 tonnes, this quantity was pro rata reduced due to imposition of 25% power cut by U.P. Government under D.I.R. with effect from August 1972.

*(c) Although the contract for supply during the period January to July provided for supply 8050 tonnes this quantity was pro rata reduced due to imposition of 25% power cut by U.P. Government under D.I.R. upto January 1973 and 40% cut thereafter.

3. *Extracts from letter dated August* 14, 1973 *received from Kanoria Chemicals & Industries Ltd.*

For the sake of keeping the record straight, we deny Hindalco's allegations that we sell caustic soda in the open market to the resellers and force the consumers to purchase the same from the open market at a very high premium rate. All our sales are made to bona fide consumers and authorised dealers only in accordance with the well established selling practice prevailing both in private and public sector as also in the caustic soda Industry at fair and reasonable rates fixed by the Company. We take strong exception to all false and baseless allegations and insinuations contained in Hindalco's letter dated 31st July, 1973 and emphatically deny the same.

4. *Extracts of the letter dated August* 20, 1973 *received from Hindalco.*

It has to be seen whether the power cut has actually lowered the production of Kanorias in the same ratio as our supplies have been reduced. On all reliable accounts, in fact, the production of Kanorias during the period, has not suffered to this extent and their supplies to other parties have not been curtailed to the same extent as that of ours.

It is also pertinent to note that power cut in U.P. has been a constant feature for the last seven years, and the position is not likely to improve in the near future. Even during this year of plenty rains, there is a nearabout drought in the concerned district where Kanorias have their factory, resulting in severe power cuts continuing in the future. This is bound to affect the supplies of Caustic Soda by Kanorias to us.

If we are allowed to set up our Caustic Soda Unit, drain on UPSEB's scarce power resources will be lessened to that extent, since all the power required for the purpose will be made available to us from our own captive power unit, and any such surplus power with the Electricity Board could be made available to other industries, as well as for irrigation purposes. Thus the above proposal is essentially conducive to public interest.

Kanorias have contended that in the year 1968, we reduced our purchases from them to about 700 tonnes per month from April 1968 to October 1968 and that we had increased our purchases from Saurashtra Chemicals. In this connection we had to observe that during this period on account of glut in the Aluminium market, our Company had to reduce the selling prices of Aluminium by about 10% apart from giving attractive credit facilities to our customers. In fact, about 20% of our total production of the value of about Rs. 5 crores was exported at a price 30% less than the domestic prices, in order that stocks of aluminium lying with the Company could be liquidated. Due to this position, there arose the necessity to carry out all round economies, and as a measure of such economy, the Company had to purchase raw materials from whatever sources which were available at cheaper rates than what Kanorias were supplying and one such source was that of Saurashtra Chemicals. The average landed cost of caustic soda supplied by Kanorias during this period was Rs. 1000.56 as compared to Rs. 949.12 per tonne of Saurashtra Chemicals, Porbandar, Gujarat. Even before diverting part of our purchases to Saurashtra Chemicals, we requested Kanorias to reduce their prices, but when no heed was paid by them, we had to take recourse to cheaper source of supply from Saurashtra Chemicals.

For running the Alumina Plant at full capacity only 4% approximately of our total power supply is necessary. The operation of the Alumina Plant is a continuous process and the same cannot be stopped. Even if production is discontinued, power will still be required to maintain the temperature of the process liquor and to keep the material agitated, so that there is no damage to the equipment or the material in process. But even in such case only 40 to 50% of the above mentioned 4% power is required and not more. In other words, about 2% of our total power requirement is necessary just to keep the process alive, the balance 2% power being required for production of Alumina. With the Company having its own power plant, there is no difficulty at all in ensuring production of the installed capacity of Alumina, provided the Company is ensured of the adequate supply of raw material Caustic Soda. It is also pertinent to note that inspite of the power cuts in the past years viz., in the years 1971 and 1972, production in the Alumina plant was not reduced, as there was sufficient availability of Caustic Soda during the relevant years, some quantity having been imported and/or purchased at exorbitant rates from the open market. There is no doubt therefore that production of Alumina suffered during the year 1973 only due to the non-availability of Caustic Soda in sufficient quantities, and in particular due to the fact that Kanorias could not fulfil their contractual obligations in the circumstances explained above.

With regard to the contention that we can command through our interconnected firms quite a sizeable production of Caustic Soda and that from one of such firms we had also purchased at the time of depression in the past, we invite the Commission's attention to what is stated above concerning the circumstances in which during the year 1968 Caustic Soda in a higher quantity was purchased from the aforesaid Saurashtra Chemicals. It cannot be forgotten that assumption of interconnection is only for the limited purpose of assuming concentration of economic power, and this assumption does not mean that the supplies of Caustic Soda by such assumed interconnected concerns would be assured to the Company. These interconnected untertakings have also their own contractual obligations with the outside parties, which are hard to fulfil in view of the proven shortage of this important raw material in the country, past, present and future, up to the end of the 5th Plan Period as is disclosed by the DGTD to the Commission at the last hearing. In fact as is seen from the aforesaid Annexure (B) Saurashtra Chemicals has, prior to the hearing of this application pleaded its inability to meet the increased demand of the Company.

With reference to paragraph 5 of the said letter, it is not correct to state that our consumption of Caustic Soda is at 17% of Aluminium metal. In fact during the year 1971 and 1972 it was higher than this figure. It has an increasing tendency, since the per ton consumption of Caustic Soda depends upon the quality of bauxite and it silica content. The higher the silica content, more is the caustic consumption. Our consumption at present is less as compared to the other producers of Aluminium in the country. As the mines become older, the bauxite quality deteriorates and the silica contents rise high. Our good quality bauxite mines are getting exhausted, and there is a certain possibility of our using in future inferior bauxite having high silica content. This will consume more Caustic Soda, apart from the fact that account has also to be taken of 25% extra production beyond the licenced capacity. Presuming that our production will be 1,50,000 tonnes of metal and even if caustic consumption is taken at 20% our requirements of caustic soda would be 30,000 tonnes per annum, which is considered to be more or less an economical and a viable unit.

With regard to the application for the manufacture of Hydrochlorine Acid, Benzene Hexa Chloride and Stable Bleaching powder, the same have been preferred only with a view not to waste chlorine which will be a co-product of Caustic Soda. It has to be considered whether the Aluminium industry should be starved of this important raw material—Caustic Soda, just because the manufacture thereof entails necessarily the manufacture also of chlorine and the aforesaid resultant bye-products. As stated in the appliction and even at the hearing, the Company is primarily interested in the manufacture of caustic soda to meet one of its important raw material requirements, and just because incidental bye-products and co-products are manufactured as a result of the scheme, it will not be in the public interest to starve the Aluminium industry of this raw mterial, specially considering the production figures of Caustic Soda in the country, past, present and future, and as per the analysis made by the DGTD.

The Company would also be prepared not to undertake the manufacture of these bye-products if the Commission so desires, for it is not the intention of the Company to do business in any of these commodities, the prime intention being to manufacture Caustic Soda.

It may also not be out of place to mention that even new industries could be set up in this backward region for the utilisation of chlorine and the aforesaid bye-products which would be manufactured by the Company as a result of the implementation of the scheme.

With reference to paragraph 7 of the said reply and the contentions regarding the surcharge of Rs. 100/- per tonne charged by Kanorias, we respectfully submit that the Association prices are fixed after taking into consideration all the factors which apply to different units in the country manufacturing Caustic Soda. Whilst the Association fixed the selling price of the Caustic Soda per tonne as applicable to all its members including Kanorias, the Association did take into consideration the fact also that Kanorias had to incur higher charges for the purchase of salt as compared to the other manufacturers of Caustic Soda in the country. At the same time, the Association also took into consideration the fact that the rates in respect of other items, such as power, applicable the to Kanorias were far less as compared to those paid by the other manufacturers of Caustic Soda in the country where the rates relating to power are high. It is also to be borne in mind that Kanorias save a lot in respect of selling expenses as compared to other manufacturers in as much as the bulk of the supply is made only to us and our Company is situated only 2 Kms. from their factory. One factor therefore off-sets the other, and it is after taking all these into consideration that the Association fixes the uniform price for all the manufacturers. If it were to be otherwise, where would be the basis for the Association to resort to an uniform price?

With further reference to the said paragraph and with regard to delivery and transport charges the fact that M/s. Kanorias have chosen to maintain the delivery department of their own is no justification to charge us exorbitant rates. Specially when we are prepared to take the delivery outselves. With regard to the delivery charges being kept at Rs. 115/- per metric tonne upto February 1968, the very fact that subsequently, the same was reduced to Rs. 65/- shows that this figure was apparently on a very high side, and considering the distance involved even Rs. 62/- per tonne presently charged is on a high side. It may be stated that the aforesaid sum of Rs. 62/- per tonne is comprised of Rs. 31/- for delivery charge and Rs. 31/- for transport charge. It may be stated that Hukumchand Jute Mills Ltd., are not charging any delivery charge and Saurashtra Chemicals are charging only Rs. 15/- per tonne for handling and incidental charge as against the charge of Rs. 31/- per tonne made by Kanorias as delivery charge. In addition to the above an amount of Rs. 31/- per tonne for transportation for a short distance of 2 Kms is being charged by Kanorias. This is certainly exorbitant even if loading, unloading and detention for testing purposes are to be taken into consideration. The refusal of Kanorias to accede to our request to lift the Caustic Soda from Kanorias' factory bears an eloquent testimony to the advantage which they seek to obtain from us by imposing these charges.

With regard to the reference to the use of mercury in the cells which is a risk trotted out by Kanorias in respect of delivery and transport it may be stated that mercury is always in the process of manufacture and there is no apprehension of its being stolen so easily as is made out by Kanorias. It is also possible for Caustic Soda to be transferred by pumps and stored in tanks away from the manufacturing process from where it can be drawn by the transporters. The excuse therefore trotted out is too lame to be believed and can hold no justification. It is also untrue that Kanorias undertaking delivery at customers' plant would help to promote harmonious relationship or minimise the scope for complaints or the risk of accumulation of stocks. In fact in the present cause it is to the contrary.

It is denied and most emphatically that our Company has any better source of supply for Caustic Soda as compared to the other manufacturers of Aluminium Industry. It is also to be borne in mind that all other manufacturers of caustic soda are situated at considerable distance from the factory of our Company, and the acute wagon shortage in the country considerably affects the timely and adequate supply of this important raw material from such distant sources. This factor has also to be taken into consideration in the light of the policy of the Government to reduce strain on rail transport.

ANNEXURE (B)

Saurashtra Chemicals

Porbandar-2
Gujarat
May 5, 1973

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Sales/GDT/3607/73
Messrs. Hindustan Aluminium Corpn. Ltd.,
P.O. Renukoot,
Dist. Mirzapur, U.P.

Attn: Mr. A.K. Agrawal

Dear Sirs,

We thank you for your Express telegram dated 4-5-1973 addressed to Shri V. M. Maheshwary, reading as under:

> "IN APRIL AGAINST OUR ORDER OF HUNDRED TONNES ONLY 29 TONS CAUSTIC SODA DESPATCHED STOP ALSO UNDERSTAND THAT OUR REGULAR MONTHLY QUOTA HAS BEEN REDUCED TO 80 TONS STOP YOUR WILL PLEASE APPRECIATE WE HAVE BEEN PURCHASING HUNDRED TONS CAUSTIC SODA EVERY MONTH FOR LAST MANY YEARS STOP IN FACT WHEN THERE HAD BEEN SURPLUS CAUSTIC SODA THAT HAD BEEN DIVERTED TO HINDALCO AND WHENEVER THERE WAS RED CAUSTIC SODA THAT WAS ALSO PURCHASED BY HINDALCO STOP THIS REDUCTION OUR QUOTA WILL AFFECT OUR PRODUCTION MORE SO WHEN WE ARE PURCHASING REGULARLY THIS PRODUCTION IS NOT REASONABLE STOP WE HAVE ALSO INTIMATED TO YOU OUR INCREASED REQUIREMENT STOP INSTEAD OF INCREASING OUR QUOTA PRODUCTION AT THIS STAGE RATHER SURPRISING STOP REQUEST DESPATCH AT THE RATE OF HUNDREDTONS A MONTH REGARDS—AGARWAL"

Kindly note that we have suffered substantial loss of production in the month of April and our production will also below in the coming few months on account of acute shortage of sweet water. The frequent power restrictions imposed by the State of Gujarat are also further aggrevating the position. It was only on account of powner cuts in the State of Gujarat your quota of caustic soda has been reduced from 100 tonnes. to 80 tonnes. It is needless to mention that even we are finding it difficult to fulfil our existing commitments on account of various factors adversely reflecting on our production.

Placed under the circumstances it will not be possible for us to increase your caustic soda allocation.

As regards despatches of caustic soda against your April and May quota we are trying to complete the same as early as possible but before that we would once again request you to see that the overdue interest due to us is remitted by you at the earliest.

Thanking you,

Yours faithfully,

for Saurashtra Chemicals
Sd/- Sales Manager.

No. 2/14/71-M(I)

GOVERNMENT OF INDIA

MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS

DEPARTMENT OF COMPANY AFFAIRS

BEFORE THE CENTRAL GOVERNMENT

In the matter of application dated 29th June 1971 received under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 from Hindustan Aluminium Corporation Ltd. for the establishment of a plant at Dudhi, Mizapur District, U.P. for the manufacture of—

26,000 M/T Caustic Soda;

13,000 M/T Liquid Chlorine;

20,000 M/T Hydrochloric Acid (Comml Gr.);

2,000 M/T Stable Bleaching Powder;

3,000 M/T Benzene Hexa Chloride.

Hindustan Aluminium Corporation Limited (hereinafter referred to as the 'applicant company') submitted on the 30th June 1971, an application dated the 29th June, 1971, under section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 (hereinafter referred to as the 'the Act') for the establishment of a Plant at Dudhi, Mirzapur District, U.P. for the manufacture of 26,000 M/T Caustic Soda; 13,000 M/T Liquid Chlorine; 20,000 M/T Hydrochloric Acid (Comml. Gr.); 2,000 M/T Stable Bleaching Powder and 3,000 M/T Benzene Hexa Chloride.

2. The Central Government on the basis of the information available with it, was of the opinion that the order under Section 22(3)(a) of the Monopolies and Restrictive Trade Practices Act according approval to the proposal for expansion could not be made without a further inquiry. Accordingly, it referred the application to the Monopolies and Restrictive Trade Practices Commission under section 22(3)(b) on the Ist Octover, 1971 for an inquiry and report. The commission, after careful consideration of all facts and cirucmstances of the case as brought before it, unanimously recommended rejection of the proposal for the reasons given in its report dated the 29th August 1973.

3. A hearing in terms of Section 29 of the MRTP Act was given to the applicant company and the objectors. Justifying the proposal as being expedient in the public interest the applicant company both at the hearing and in its subsequent written submissions dated the 30th November 1973 has stated that—

(1) the applicant company is having its units only 40 miles away from a declared backward area and, therefore, the applicant company should have the benefit of concessions given to industries established in backward areas;

(2) the process involved in this project is only a chemical process and no body other than the applicant company is better qualified to undertake this expansion or production of Caustic Soda etc;

(3) the applicant company has submitted its application for expansion to produce Caustic Soda not on its own accord, but in the public interest, in accordance with the appeal made by a Government press note as reflected in the minutes of the Meeting of the Import Advisory Committee on Caustic Soda held on the 13th November 1972;

(4) in paragraph 4·25, the Commission has misunderstood the company's proposal because the Kanoria Chemicals are manufacturing only alumina;

(5) the foreign capital participation in the applicant company is only 26%;

(6) there was a shortage of Caustic Soda in the country and it will continue to be so throughout the world for years to come;

(7) the applicant company is prepared to form a separate company without foreign capital participation or collaboration for production of Caustic Soda if Government considers such a course necessary;

(8) the applicant company has its own power generation and has not to depend on the U.P Electricity Board for its power;

(9) the applicant company is prepared to guarantee the export of any excess production, or for the sale of the excess production to such parties as the Government may direct.

4. M/s. Kanoria Chemicals & Industries Limited, the objector, however, made out the following points during the course of hearing and in its subsequent written submissions :—

(1) since the applicant company submitted its application there has been considerable development in the Caustic Soda industry, considerable capacity has since been sanctioned and seven parties have received letters of intent for production of Caustic Soda;

(2) the Kanoria's has also been allowed additional capacity production of Caustic Soda and it would be able to meet the requirements of the applicant company also.

(3) it has been possible for the Kanoria's to supply all the contracted quantity of Caustic Soda to the applicant company despite difficulties in power etc.

5. The Central Government have carefully considered the arguments of the applicant company and also of the interested parties at the hearing, and their subsequent submissions made in writing. The contentions broadly relate to the capacity of the applicant company both from the point of view of technical know-how and the financial resources to implement the project. These considerations by themselves are not adequate to satisfy the tests laid down in clause (a) of sub-section (3) of Section 21 which enjoins on the Central Government to satisfy itself that the proposal for the expansion is not likely to lead to concentration of economic power to the common detriment or is not likely to be prejudicial to the public interest in any other manner and that it is expedient in the public interest to approve the project. The Central Government have carefully considered the Report of the Monopolies and Restrictive Trade Practices Commission. M/s. Kanoria Chemicals and Industries Ltd. the present supplier, has already been approved a capacity for producing 33,000 tonnes of Caustic Soda per year and its application for further expansion of capacity by a further 33,000 tonnes is under the consideration of the Government. A few other units may also come up in this line. It is quite probable that not only adequate supply of Caustic Soda would become available to the applicant company but even that there would be competing sources for such supply which would make the applicant company's position in this respect safer and better. The Kanoria's proposal for expansion upto 66,000 tonnes will involve a capital cost of Rs. 5.05 crores while the applicant company has estimated a capital cost of Rs. 8 crores for the proposed capacity of 26,000 tonnes of Caustic Soda and other related products. The Central Government accept the view of the Commission that there would be enough sources of Caustic Soda in the country, some of them assumed as inter-connected

with the applicant company and the applicant company can avoid its having to depend only on Kanoria Chemicals. The apprehension of the applicant company that in case its proposal is not approved, it will have to depend on Kanoria Chemicals is not well founded. The applicant company can make long term agreements with Kanoria Chemicals to ensure smooth and adequate supply of Caustic Soda to meet their adequate requirements and it can also have similar long term contracts with other manufacturers of Caustic Soda in the country if it feels that it cannot depend on any one source of supply. The Central Government also accept the views of the Commission that the function of producing Caustic Soda should ordinarily be undertaken by manufacturers who specialized in chemical industries. Permitting any unit to enter in the production of Caustic Soda will inevitably lead to its entry into a large field of chemical industry. This is unavoidable if the unit is to be operated on economic and efficient lines. The implication of this in the present case is that if the applicant company is permitted to set up a caustic soda unit, this will inevitably lead to its entry in a significant way in the chemical industry. The cost of the applicant company's project is comparatively at a higher footing.

6. In the circumstances, the Central Government are satisfied that the tests laid down in clause (a) of sub-section (3) of section 22 and the criteria enumerated in Section 28 shall not be satisfied if the present proposal for establishment of a new undertaking is approved.

ORDER

The Central Government, in exercise of their powers under clause (a) of sub-section (3) of section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, hereby reject the proposal of Hindustan Aluminium Corporation Limited for the establishment of a new undertaking for the manufacture of Caustic Soda etc. as contained in the applicant company's application dated the 29th June 1971, made under Section 22 of the Act.

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(Sd.)
ASHOK NATH,
Under Secretary to the Govt. of India

NEW DELHI-1, the
11*th February* 1974

REPORT UNDER SECTION 22(3)(b) OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969, IN THE CASE OF HINDUSTAN LEVER LIMITED, BOMBAY

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Report under Section 22(3)(b) of the Monopolies & Restrictive Trade Practices Act, 1969—M/s. Hindustan Lever Limited, Bombay

CHAPTER I

INTRODUCTION

1·1 M/s. Hindustan Lever Limited, hereinafter referred to as HLL, submitted an application to the Government of India, Department of Company Affairs on 27th October, 1972 seeking that Department's approval for setting up a new factory at Haldia, District Midnapur in the State of West Bengal to manufacture Sulphuric Acid, Phosphoric Acid and Industrial Phosphate. The details regarding the proposed capacity etc. applied for are as below :—

(a) Sulphuric Acid · · ·	54,000 tonnes per annum
(b) Phosphoric Acid · · ·	19,500 „ „
(c) Industrial Phosphate · ·	30,000 „ „

The Industrial Phosphate intended to be manufactured will be mainly Sodium Tripolyphosphate (hereinafter referred to as STPP) which is used in the manufacture of synthetic detergents.

1·2 This application of the company has been referred by the Department of Company Affairs to the Monopolies & Restrictive Trade Practices Commission for enquiry and report. The Government's letter No. 2/7/72-MI dated the 14th March, 1973 making the reference was received in the Commission's office on the 15th March, 1973. The 90 days time prescribed under Section 30(2) for the submission of the report to the Government expired on 13th June, 1973. However, for the reasons discussed in the Commission's Orders dated the 22nd May, 1973 and 28th August, 1973, the date for the submission of the report was first extended to 31st August, 1973 and then subsequently to 20th September, 1973.

The Applicant Company

1·3 HLL was initially constituted as a private limited company in the name Lever Brother (India) Pvt. Ltd. on the 7th October, 1933. It seems to have continued in that capacity till the 27th day of October, 1956 when it was converted from a private limited company to a public limited company. Prior to this date, all the shares in the company (55,70,000 equity shares of Rs. 10 each fully paid up) were held by M/s. Uni Lever Limited, U.K. On conversion of the company into a public limited company, M/s. Uni Lever offered 10% of its holdings *i.e.* 5,57,000 shares to the Indian Public with the consent of the controller of the capital issues. The shareholdings pattern of M/s. Uni Lever Limited and of Indian Public since inception had been as follows :—

TABLE NO. I

Pattern of Shareholding

	Member of shares		
	Uni Lever	Indian Public	Total
Original allotment for cash · · · · ·	2,40,000	..	2,40,000
Shares allotted for consideration other than cash	20,40,000	..	20,40,000
Sale by Unilever to Indian Public in 1956 · ·	5,57,000	5,57,000	..
Capitalisation of Reserves from time to time ·	1,01,19,565	10,44,375	1,11,63,940
Rights Issue in 1965 · · · · · ·	4,44,450	5,57,000	10,01,450
TOTAL :	1,22,87,015	21,58,375	1,44,45,390

The details given above will show that out of the total capital amounting to Rs. 1,22,87,015 with Unilever, U.K., capital of the face value of Rs. 1,01,19,565 has been raised in their favour by capitalisation of distributable profits.

1·4 The other important shareholders on 8-6-1972 were as below :—

TABLE NO. II

Name of the Shareholder	No. of equity shares of Rs. 10 fully Paid up by the shareholder
Unit Trust of India	1,46,474
L.I.C.	87,785
Other insurance companies	1,74,241
Banks	64,018

Capital Structure

1·5 The capital structure of the company as on 31-12-1972 was as below :—

Authorised, Issued & Subscribed Capital

1,44,45,390 shares of Rs. 10 each. These comprise of 1,22,87,015 shares held by M/s. Uni Lever Limited, U.K., constituting a little over 85% of the total shareholdings in the company.

1·6 Of the total share capital, 20,40,000 shares were allotted as fully paid up pursuent to a contract for consideration other than cash and 1,11,63,940 shares were allotted as fully paid up by way of capitalisation of share premium and accumulated profits.

Interconnected and Subsidiary Companies

1·7 M/s. Hindustan Lever Limited has been classified by the Industrial Licensing Policy Inquiry Committee in its Report (Volume II) as a company belonging to the Large Independent Companies. It has denied any interconnection with any other undertaking in India before the Commission. It has, however, four subsidiary companies. One of these is Indexport Limited. This company is claimed to be a recognised export house and engages itself in exporting products manufactured by the company and also of third parties. The other three subsidiary companies are :—

(a) Levers Associated Trust Ltd.

(b) Levindra Trust Ltd.

(c) Hind Lever Trust.

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These companies do not carry on any manufacturing or trading activities and therefore have no separate income—expenditure of their own. They only act as trustees of provident fund/pension funds set up by the company for its employees.

1·8 The value of gross assets of HLL as on 31st December, 1972 was Rs. 63·47 crores. The corresponding value of such assets as on 31-12-1972 was Rs. 44·55 crores. Thus, there has been an increase of Rs. 18·92 crores in the gross value. Out of this, Rs. 16·14 crores represent value added to land and buildings and major items of plant & machinery on account of the revaluation of such assets. This has been done so that 'the shareholders would have a clear indication of the current value of the assets of their company'. The amount of Rs. 16·14 crores has been transferred to capital reserve by the company.

Management

1·9 The company is managed by a Board of Directors. The present Board consists of the following persons :—

(i)	Mr. T. Thomas	Chairman of the Board of Directors.
(ii)	Mr. D.F. Webb	Vice Chairman.
(iii)	Dr. J.O. Chopra	Director Detergents.
(iv)	Dr. S. Vardhrajan	Research Director.
(v)	Mr. J.A. Houtzager	Commercial Director.
(vi)	Dr. R. Banerjee	Personnel Director.
(vii)	Mr. A.D. Moddie	Resident Director Delhi.

1·10 The Board of Directors, it has been claimed, is a professionally managed board. None of the directors are shareholders in the company. The Chairman is the Chief Executive of the Company, who co-ordinates functions of other board members and of the company secretary, who is also a secretary of the Board. Each of the other directors has several departments under him. For example, Commercial Director is having finance and accounts, commercial services (management), accounting, head office administration and new projects under him. The company secretary looks after secretarial, registrar, legal, insurance and public relations affairs.

The Proposal

1·11 The company has proposed to manufacture sulphuric acid, phosphoric acid and industrial phosphates. The sequence of operations and the major raw materials used for these, as intimated by the company, will be as follows :—

1. From 60 tonnes of sulphur, 175 tonnes of sulphuric acid will be made.
2. 200 tonnes of rock phosphate will be added to this sulphuric acid and this will result in—
    - (a) 300 tonnes of gypsum (a bye-product), and
    - (b) 63 tonnes of P_2O_5 (of phosphoric acid).
3. 80 tonnes of soda ash will be added to 63 tonnes of phosphoric acid and this will result in approximately 100 tonnes of STPP.

(The above is a rough working based on stoichometric ratios and processed losses, but excludes losses due to purification and upgrading, etc.).

1·12 Of the raw materials required sulphur has got to be imported because this is a material which naturally occurs and it will not be possible to develop it in the country. Rock phosphate is presently being imported. The company in its application has indicated that it may be possible to get rock phosphate in the country itself in the near future because discoveries of rock phosphates have been made in Rajasthan and U.P. However, enquiries made by the Commission from the Geological Survey of India and the Ministry of Steel and Mines have indicated that there is no possibility of getting the required quantity and quality of phosphate from indigenous sources in the next few years. The observations of the Geological Survey of India in this regard are as below :—

> "......the known reserves can meet only about 10-15% of the total requirements for the fertilizer industry. Search for more phosphorite deposits is being vigorously pursued by the Geological Survey of India and it may be possible to augment indigenous production from new discoveries. But on the basis of our present knowledge, it appears that over 80% of our future requirements, will have to be met from imports."

The observations of the Ministry of Steel and Mines in this regard are as below :—

> "The major deposit of rock phosphate is Jhamarkotra near Udaipur in Rajasthan.
>
> A feasibility Report has been recently prepared by the World Bank Experts and in their opinion this deposit can sustain a production of up to 15 lakh tonnes of rock phosphate after necessary upgrading. Chances, however, are more in favour of developing this project to begin with for a production level of 7,50,000 tonnes of beneficiated rock phosphate. It is difficult to say at present how the indigenous production from Jhamarkotra will compare with the imported rock but for some of the plants such as Triple Super Phosphate Plant of Hindustan Copper Ltd., the specifications are quite rigid and the imports will have to be resorted to for some time to come. The production from Jhamarkotra is at present only from rich portions of the deposit and unless industrial scale pilot plant tests are carried out on the samples from the various portions of the deposit, the characteristics of beneficiated rock cannot be asccurately ascertained.
>
> The action on the Feasibility Report from the World Bank is yet to be taken and the production at the level of 7,50,000 tonnes per annum can be available only by the end of the 5th Five Year Plan. For demand projections, the Ministry of Petroleum & Chemicals may be contacted. In the report of the Task Force on fertilizer industry, the demand of phosphate fertilizer in terms of P_2O_5 has been placed at little over 2 million tonnes. The indigenous production will not be sufficient to meet the entire demand."

From the above it is quite clear that the requirements of rock phosphate for the proposed plant of HLL will have to be met from imports for quite some time to come.

1·13 The two acids proposed to be manufactured are for captive use. There are corrosive acids and their transport from one place to another is hazardous and explosive. Therefore, if the consumption of these acids is sizeable and continuous, it is better to have a captive plant at the site where the final product is going to be produced.

1·14 The phased programme for the manufacture proposed by the company is as below :—

Year	Line of Production	Annual turn-over expected
		(In tonnes)
First	Industrial Phosphates	18,000
Second	-do-	27,000
Third	-do-	30,000

Size of the Plant

1·15 The company was asked to indicate as to what will be the economic size for a plant for the proposed products. In reply it has been stated that it is not possible to state as to what will be the economic size of a plant in isolation from demand pattern for the product. It has, however, been stated that a larger sulphuric acid, phosphoric acid and industrial phosphate plant will yield better economies of scale. The company, however, proposes to build in infra-structure while constructing the plant so that if necessary at a future date, the capacity of the plant may be increased with the least expenditure.

1·16 Enquiries made from the D.G.T.D. by the Commission have indicated that a plant of 25,000 to 30,000 tonnes capacity per annum can be considered to be economically viable. Our subsequent discussion will indicate that most of the intending producers of STPP have requested for a capacity of 20,000 to 30,000 tonnes per annum. Hence, perhaps a capacity of 25,000 to 30,000 tonnes per annum can be considered to be an economically viable capacity.

1·17 The company in its reply has stated that it will be possible to undertake manufacture of many other types of industrial phosphates also with the basic facilities proposed in the plant with minor additional equipment and with the help of R & D facilities. However, whether the company is having any programme to manufacture any other phosphates besides STPP has not been stated specifically and has been left with the observations that the programme will depend on more detailed analysis of demand for the specific phosphates.

Scheme of Finance for the proposed project

1·18 The estimated project cost given by the company is as below :—

	Rs. in lakhs
Land	10
Buildings	290
Plant and Machinery	700
Total	1,000

During the course of public hearing it was conceded by the company's representatives that the project cost has considerably increased since the application was submitted. They may have now to incur a cost of about Rs. 12 crores for the items for which an estimate of Rs. 10 crores was made in the application.

1·19 Besides the requirement of capital for land, building, plant and machinery, the company will have to incur sizeable amount of expenditure on the import of raw material and will have to provide sufficient amount by way of working capital. All the aspects relating to finance will be discussed in detail in the chapter relating to the Scheme of Finance.

1·20 The project of Rs. 10 crores, it was expected, will be financed from the following sources :—

1. Dilution of foreign equity by the issue of shares of the value of 40% (Rs. 4 crores) of the funds required as prescribed by the government guidelines, at a premium to be sanctioned by the Government.

2. Rs. 2 crores foreign exchange loans from ICICI/IFC as approved by the Government.
3. Debentures as approved by the Controller of Capital Issues and the balance, if any, by borrowing from Financial Institutions/Banks on terms to be negotiated with them.

These aspects relating to finance will also be discussed in detail in the subsequent chapter.

Existing lines of production of the company

1·21 The information regarding existing lines of production and the production in the past 5 years is as under :—

Item	Capacity sanctioned +permitted liberalisation ('000 tonnes single shift basis)	Installed capacity	Date of commencement of production	Actual production in terms of Qty. and value in the year 1972 and preceding 4 years	
1	2	3	4	5	
				Tonnes	Value Rs. lakhs
Foods (including Animal Feeds)					
Scheduled	56	56	Vanaspati from 1934 Dairy products from 1960; Processed Foods from 1959; Animal Feeding Stuffs from 1961	1968-106940	4134
				1969-104842	4867
				1970-110561	5767
				1971-115966	5899
				1972-108073	5445
Non-Scheduled	150	118		1968-41049	328
				1969-51834	411
				1970-64515	521
				1971-78550	676
				1972-54502	747
Detergents and Toilet Preparations					
Scheduled	101	78	Soaps from 1934; Synthetic detergents from 1959; Scourers from 1934; Toilet preparations from 1934	1968-134140	4435
				1969-140999	5217
				1970-138074	5679
				1971-158583	6865
				1972-165013	7054
Non-scheduled	14	14		1968-3396	69
				1969-3948	80
				1970-4254	88
				1971-4650	107
				1972-4991	116
Chemicals					
Scheduled	4	4	Chemicals from 1934	1968-6852	307
				1969-7178	350
				1970-6440	366
				1971-6210	335
				1972-6046	371
Non-scheduled	0.3	0.3		1968-121	24
				1969-255	55
				1970-366	102
				1971-425	120
				1972-422	116
Industrial Machinery					
Non-scheduled	260 M/cs	130 M/cs	M/cs Mid 1972	1972 8 M/cs	6

From the above it would be noticed that the company has increased its capacity in foods, detergents and chemicals. These capacities have been increased by the order of the Government by taking benefit of 25% expansion permissible without a licence and by regularisation of capacity permitted under the liberalisation scheme announced in the year 1972. The fields where capacities are not being reached are—

(a) Vanaspati
(b) Convenience Foods
(c) Margarine
(d) Animal Feeding stuffs
(e) Toilet Preparations
(f) Glycerine
(g) Catalysts
(h) Industrial Machinery

1·22 The reasons given for not reaching the capacity in these fields are—

(i) Constraints of demand and pricing (in the case of Vanaspati).
(ii) Lack of demand (in the case of Convenience Foods and Margarine).
(iii) Late starting of production (as in the case of Industrial Machinery, Toilet factory at Gaziabad).
(iv) Competition from other producers (in the case of Animal Feeding stuffs).

Other Proposals for Expansion

1.23 The reply received from the company indicates that after coming into force of the M.R.T.P. Act, 1969 it has applied for the following projects other than the one under enquiry :—

(a) Expansion in the field of fine chemicals;
(b) Manufacture of synthetic detergents at two new units in U.P. and Jammu & Kashmir;
(c) Manufacture of Caustic Soda;
(d) Manufacture of Ossein and Di-calcium.

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The details regarding the proposed expansion are :—

TABLE NO. IV

Name of the item	Existing Capacity	Capacity after expansion	Remarks
	(Tonnes)		
Fine Chemicals	113	176	
Synthetic Detergents	46,000	74,000	Expansion is proposed by setting up two new units in U.P. and J. & K. These applications are under the active consideration of the concerned Ministry and recommendations have been submitted to the Licensing Committee.
Caustic Soda	Nil	33,000	Applications was made on 25-5-1972. It is proposed to set up this unit in the State of Maharashtra or West Bengal. The proposed investment is expected to be of the order of Rs. 708 lakhs. This application is also under the active consideration of the Ministry and recommendations are expected to be shortly placed before the licensing Committee.

Name of the Item	Existing Capacity	Capacity after expansion	Remarks
	(Tonnes)		
Ossein	Nil	3,000	Unit is proposed to be set up in the State of Maharashtra involving an investment Rs. 100 lakhs. Application for this was made on 16th March, 1973. It has been stated that this project will be predominantly export-oriented. The proposal has been sent to the Licensing Committee on 30th July, 1973 for their consideration.
Di-calcium Phosphate (bye-product)	Nil	6,000	

Contemplated Projects

1·24 There are few other projects which the company has under investigation. Some of these are said to be based on its own research and development work and some are reported to be based on technology available in the country. The items contemplated are :—

(i) Production of Synthetic Fatty acid.	Based on current research and development work.
(ii) Production of Glycerine from molasses through bio-chemical process.	Based on company's own research and development work which is in progress.
(iii) Production of facilities for splitting and distillation on fatty acids.	Project evaluation is in progress.
(iv) Manufacture of finished leather for export.	Project evaluation is in progress.

Applications will be made to the Government in respect of such projects only when the respective evaluation or R & D work has been completed.

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CHAPTER II

THE APPLICANT'S OWN CASE

Past Record

2·1 The discussion in Chapter I shows that the applicant company has been engaged in the manufacture of various items, which, strictly speaking, cannot be said to be co-related with each other. Hence the company was asked to indicate as to what extent the existing production lines are complementary to each other. The company's case before the Commission is that most of its activities can be regarded as integrated and inter-dependent. It has been the policy of HLL to ensure that the available resources in the company should be optimised over all on going up operations and the management and personnel should be specifically allocated to particular products only when absolutely necessary.

2·2 The basic technologies of the major businesses are claimed to be inter-related as both soap and vanaspati are made from oil. Therefore, facilities for receiving and storage of oil, pre-treatment of oil, etc. are common. Even some of the oil processing facilities can be said to be common. For instance, hydrogenation facilities can be used for either the manufacture of vanaspati or for hydrogenation of non-traditional oils such as rice bran, castor, Karonja, etc., which are being increasingly used in soap making to reduce dependence on edible oils or imported tallow. In utilisation of bye-products also, there is merit in sharing facilities because the acid oil which is produced while refining oil in vanaspati manufacture, can be utilised in soap making. It has been claimed that through its animal feeding stuff business, the company is able to ensure that the oil cakes arising from the exploitation of non-traditional oils, such as sal for soap making, can be used for animal nutrition.

2·3 The integrated nature of the company's business and its technology, it has been claimed, has enabled the company to establish a research unit which is based not on product and use, but on scientific development. We will discuss about the company's R & D unit subsequently in this Chapter.

2·4 The distribution system has also been claimed to be an integrated whole, run not on product group lines, but in four geographical branches at Bombay, Delhi, Calcutta and Madras under the management of a branch manager. In rural markets, the company maintains a fully integrated van selling operation in which a selection of products relevant to the rural consumer are carried in a common van service.

2·5 The company's contention before the Commission therefore has been that its present product-mix helps in :—

(i) Lowering costs of production;

(ii) Better utilisation of bye-products;

(iii) Improved research and development;

(iv) Better use of marketing and other facilities.

Research & Development

2·6 Considerable stress was laid before the Commission by the company about its research and development programme. It has been claimed that company's R & D effort has contributed to import substitution, in development of Indian natural raw materials, such as oil and fats, essential oils and perfumery material and in new product and process development and improvement in areas, such as soaps, detergents, edible oil, food products, food technology, human nutrition, animal nutrition, chemicals and catalysts. The direct effect of such R & D work has been claimed to be large and is exemplified by the fact that the savings in import as a result of usage by the company of unusual, hitherto unused oils in the year 1971 alone amounted to Rs. 36 million and the total savings in import in the area of essential oils and fine chemicals for perfumes amount to Rs. 55 million during the years 1962-1971. Other significant contributions are claimed to have led to the growth of detergent products based largely on local materials leading to release of oils for edible purposes, formulation of special items for export, the development of new sophisticated technology and the design and the fabrication of complex, scientific and pilot plant equipment. It has been claimed that the company has set up a research unit at Andheri in Bombay at a cost of 2 crores and its expenditure on the research and development has grown to Rs. 80 lakhs in the year 1972. Research knowledge and new technological development of Uni Lever has also been available freely to the company. The company has also been able to establish good co-operation with Indian National Laboratories, Universities and Scientific Organisations. The continued assistance and collaboration effort by Uni Lever through training of scientists in Unilever Laboratories, frequent exchange of scientific personnel and continuous inflow of research and technical information are claimed to have contributed significantly to the growth and development of research and development unit of the company. An organisational chart of the Research Centre Bombay as on 1st August, 1973 is enclosed as Annexure 'A' to this report.

2·7 The company has supported the various claims regarding research and development by specific instances as below :—

A. Patents :

The company has claimed to have developed a number of new patents. A list of applications filed in India on the basis of research and development results is attached (Annexure 'B'). These applications relate to various subjects which come within the purview of the manufacturing activities of the company.

B. Development of non-edible oils to substitute edible oils :

In this connection a statement (Annexure 'C') has been filed by the company to show the total quantity of oils consumed in the manufacture of soap from 1966 to 1972 and the quantities of non-edible oils consumed in the manufacture of soap for the same period. On the basis of this data, it has been claimed that as a result of the efforts of the company's R& D, it has been possible to develop the use of non-edible oils in the manufacture of soap and the usage of such oil has steadily risen from 4% in the year 1966 to 30% in the year 1972.

C. Essential oils and fine chemicals :

A major attempt, it is said, has been made in the development and use of indigenous essential oils and fine chemicals. The company has claimed savings in foreign exchange as below during the peirod 1962 to 1972 on account of achievement of R & D in these fields.

TABLE NO. V

Year	Foreign Exchange savings in essential oils and fine chemicals
	Rs. lakhs
1962	10·7
1963	17·0
1964	18·5
1965	45·5
1966	48·3
1967	56·6
1968	71·8
1969	81·6
1970	83·7
1971	110·5
1972	101·7
TOTAL :	646·8

2·8 Other fields where R & D achievements have been claimed to have achieved substantial success are :—

(*i*) *Chemicals*

It has been clamied that substantial changes have taken place leading to replacement of imports, expansion of detergents and toilet preparation industry and the rise of totally new ancillary chemical industries. It has been said that in the year 1961 virtually every single item used in synthetic detergent powder, shampoos and hair creams, tooth paste and shaving preparations was imported. Today except for alkyl benzene all chemicals needed for these products are being manufactured within the country.

2·9 The achievements claimed in various fields are :—

(*ii*) *Edible oil products*

(a) Work on the incorporation of polyunsaturates in vegetable oil products is in progress.

(b) Development of margarine.

(*iii*) *Food technology and nutrition achievements*

(a) Acquisition of new knowledge on Indian raw materials, through processing, behaviour of processed foods under widely varying climatic conditions and preferences of Indian consumers.

(b) Formulation of processes for the production of a standardised high quality ghee and milk powder from buffalow milk.

(c) Development of baby food formulation.

(d) Work on a project for the formulation of very high quality protien foods containing a combination of materials.

(*iv*) *Animal nutrition*

(a) Development of sal cake for animal feed.

(b) Development of oil cakes for animal feed from neem and mowaha.

(*v*) *Catalysts*

The company claims to have started manufacture of supported nickel catalysts for hydrogenation purposes with the technnology derived from Uni Lever.

(*vi*) *Design and Fabrication of equipment*

To meet the requirement of R & D the company has started manufacturing its own pilot plant with the help of its technical engineers.

(*vii*) *Annual expenditure on R & D and its relation to turnover*

The information given by the company in this regard is as below :—

TABLE NO. VI

Year	Revenue Expenditure on R & D	Total turnover of the Company	Revenue expenditure on R&D expressed as a percentage total turnover
	Rs. lakhs	Rs. lakhs	
1961	5	4992	0·10
1962	6	5385	0·11
1963	9	5955	0·17
1964	14	6187	0·23
1965	18	7148	0·25
1966	24	8467	0·30
1967	31	9328	0·34
1968	44	9259	0·47
1969	55	10879	0·51
1970	64	11921	0·54
1971	72	13410	0·54
1972	79	14044	0·56

Export Performance—Inflow/Outflow of Foreign Exchange

2·10 The company was asked to indicate its export performance during the past five years The position in this regard as furnished has been found to be as below :—

TABLE No. VII

(Rs. '000)

Year	Net Dividend	Outflow		Inflow	Net Inflow (+) or Outflow (—)
		Total expenditure on import of raw material	Total of (a) & (b)	i.e. Exports	
1968	10,390	8645	19035	6,979	(—)12056
1969	11,874	8050	19924	15,624	(—) 4300
1970	12,987	10381	23368	42,232	(+) 18869
1971	13,780	15280	29060	48,782	(+) 19722
1972	14,608	12160	26768	82,081	(+) 55313
TOTAL :	63,639	54516	118155	195,698	(+) 77543

The company has claimed that its export performance has been extremely good and it hopes to increase it further in the coming years.

Import of foreign technology, payment of royalty/technical know-how fees, etc.

2·11 The company has claimed before the Commission that it has not imported any technical know-how for its existing product lines and except dividend to the foreign shareholder, no other payments by way of royalty/technical know-how fees has been made to foreigners, etc.

For the proposed project the company may have to import technology. However, during the course of public hearing, it was stated by the company's representatives that if know-how can be made locally available and if it is found to be up-to-date and satisfactory, then certainly the company will be willing to buy it indigenously.

Justification given by the Company in support of the proposed project

2·12 The company was asked to indicate the reasons (keeping in view the criteria specified in Section 28 of the MRTP Act, 1969) why it should go in for the production of the three items applied for. The following reasons have been given in support of the proposal :—

(i) The project is for the manufacture of essential chemicals viz., sulphuric acid, phosphoric acid and industrial phosphates which are used in several Core Sector industries such as synthetic detergents, phosphatic fertilizers, etc. and will help in achieving production of these vital products "as will best meet the requirements of the defence of India and home and overseas markets"—Cl. (a) of S. 28.

(ii) The project will help in closing the gap between supply and demand for the three products and thereby serve the purpose of fostering competition and having "the trade organised in such a way that its efficiency is progressively increased"—Cl. (b) of Section 28.

(iii) The project will augment the supplies of sulphuric acid, phosphoric acid and industrial phosphates which are currently in short supply (the latter two chemicals being currently imported) and will thus "ensure the best use of men, materials and industrial capacities in India" in the Core industries such as synthetic detergents, phosphatic fertilizers, etc. which depend on these chemicals"—Cl. (c) of Section 28.

(iv) The project will encourage technological changes in the following two ways, viz.,

(a) by making industrial phosphates available adequately for synthetic detergent industry, it will expedite the technological change from the use of soaps which are made from scarce imported oils and fats, to the use of synthetic detergents;

(b) by increasing the availability of phosphoric acid in the country it will assist in the technological change from traditional manures and fertilizers to the use of more balanced plant nutrients including phosphates.

In this manner the project will "effect technical and technological improvements in trade and expansion of existing markets and the opening up of new markets"—C. (d) of Section 28.

(v) One of the major products envisaged under this project i.e. sodium tripolyphosphate is currently manufactured by only one party viz., Albright Morarji & Pandit who control production and supply of the entire quantity manufactured in India and are therefore a 100% monopoly. HLL's project will conform to the objectives:—"to encourage new enterprises as a countervailing force to the concentration of economic power to the common detriment"—Cl. (e) of Section 28.

(vi) The project involves investment of over Rs. 10 crores in a Core Sector industry to be located in a backward area of West Bengal where it will generate substantial direct and indirect employment and generally help the economy of the region. Furthermore, it will reduce dependence on oils and fats which are scarce for making soap and also help farmers in increasing food production. Thirdly it will reduce the need for imports of oils and fats and phosphates for use in industry and agriculture. In all these ways the project will help "to regulate the control of the material resources of the community to subserve the common good"—Cl. (f) of Section 28.

(vii) The project is proposed to be located in Midnapore District of West Bengal which has been declared as a backward area. The Government of West Bengal are extremely anxious to develop this region and they consider that the location of this project in that region being the first major investment (other than in the public sector) will serve as a catalyst for several other investments in that region. Secondly as the project involves the manufacture of basic chemicals, it will stimulate the growth in that area of other chemical industries based on these products. Thirdly, the project will specifically encourage the growth of synthetic detergent industry in the North East and Eastern regions of India for which Government have already issued letters of intent for substantial capacity and which will otherwise have to depend on supplies of industrial phosphates from distant regions thereby suffering a regional disparity.

In all these ways, the project helps "to reduce disparities in development between different regions and more especially in relation to areas which have remained markedly backward" —Cl. (g) of Section 28.

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2·13 The selection of 'Haldia' as a site for the proposed project has been justified on the following grounds :—

(a) Rock Phosphate and sulphur are bulk commodities and can be better handled at a rail head or port site. Since both these things will have to be imported for a long time, a port site is most suitable. Haldia is a port site.

(b) Facilities for handling rock phosphate and sulphur in bulk are already being planned to be provided at Haldia for the use of Fertilizer Corporation of India who will be using much larger quantities. It will be economical to share these facilities with them.

(c) One of the major products from the factory will be STPP used in synthetic detergent industry. At present the only factory for producing this item is in the Western Region and there is no factory for production of this item in the Northern, North Eastern, Eastern or Southern Regions of India. From the proposed location of Haldia all these regions can be served by rail or sea.

(d) In addition to these economic reasons, the social reasons for selection of Haldia are that it is located in West Bengal which needs a very large increase in employment potential and secondly Haldia is in a backward district namely Midnapore and this project will help in industrialisation of a backward area.

(e) It has also been claimed that the plant at Haldia will develop ancillary and small scale industry. Some of the advantages that will accrue to such industries have been detailed as below :—

(i) For the packing of 30,000 tonnes of industrial phosphates, HLL will require 6 lakhs of jute bags at 50 kg/bag. These will be worth about Rs. 15 lakhs per annum and could be supplied by small-scale units.

(ii) As the value of plant is over Rs. 7 crores, the value of spares and services to be bought will be about Rs. 30 lakhs per annum. Many of these could be supplied by small-scale engineering units.

(iii) Sulphuric acid is a basic chemical which can be used in other chemical and allied industries such as manufacture of dyes, alum, vanaspati, batteries, etc. Phosphoric acid can be used for electroplating, rust-proofing, food additives, etc., which are usually in small-scale sector.

(iv) The process of manufacture of sodium tripolyphosphate involves the use of about 24,000 tonnes per annum of Soda ash which will be supplied by other manufacturers including possibly the Fertilizer Corporation of India who have plans to make it at Haldia. Soda Ash manufacture involves the use of salt which in turn leads to larger employment in the production of salt which is labour intensive.

(v) For the production programme envisaged, the following quantities of materials have to be handled and transported;

60,000	Tonnes	Rock Phosphate
18,000	,,	Sulphur
24,000	,,	Soda Ash
90,000	,,	Gypsum
30,000	,,	Sodium Tri-polyphosphate
2,22,000	Tonnes	

Therefore, over 2 lakh tonnes of materials will be moved by Small-scale transport operators.

Employment Opportunities

2·14 The company has stated that its proposal will lead to considerable employment. According to the company's working employment of the following magnitude will be generated by its proposal :—

1. *Employment in the proposed factory :*

(i)	Direct factory employment	---	300 men
(ii)	Movement of raw-materials and finished products for the factory	---	200 ,,
(iii)	Provision of other services like spares, supplies, etc.	---	500 ,,
			1,000 Men

2. *Employment in industries arising from the project :*

If 30,000 Tonnes p. a. of STPP are used in detergent formulations at the rate of 20% in corporation, it will produce 150,000 Tonnes p.a. of detergents. Assuming that at least 50% of the product will be manufactured and sold in West Bengal, i.e. 75,000 Tonnes p.a. of detergents.

This will give rise to the following chain of employment opportunities:

(a)	Direct employment in detergent production as powder/bar at the rate of 40 manhours per tonne of product and average of 200 working days/annum.	—	1,500 men
(b)	Production of packaging materials and ingredients for the detergent factories will involve about half this manner	—	750 ,,

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(c) Handling of raw materials and finished goods of detergent factories, i.e. 75,000 Tonnes raw materials and 75,000 Tonnes finished goods to be moved in lots of 5 tonnes each which will take 2 man-days per lot — 300 men

(d) Trading and other service functions generated by detergents-About 3% of the value of 75,000 Tonnes p.a. of detergents i.e. 75 crores, will be earned by the trade. Assuming 1% out of this will be as wages or remuneration for self employment, such earnings will amount to Rs. 75 lakhs p.a. at Rs. 1,500 per head per annum, the equivalent employment generated is 5,000. — 5,000 ,,

3. *Summary*

In the phosphate factory directly or indirectly	1,000 men
In detergent industry—1,500 750 300 5,000	7,550 ,,
Total:	8,550 men
Say:	8,500 ,,

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CHAPTER III

OBJECTIONS TO THE COMPANY'S PROPOSAL

3·1 The applicant company had put in notices in the 'Journal of The Constitution of Chemists (India)' September,1972 issue and in the Statesman (Calcutta) dated the 4th November, 1972; notifying that it proposes to make an application under Section 22(2) of the Monopolies & Restrictive Trade Practices Act, 1969 to the Department of Company Affairs, New Delhi, for permission to establish a factory for the manufacture of the proposed products. In response to these notifications, the Department of Company Affairs received certain communications regarding the company's proposal. These were forwarded to the Commission by the said Department for its consideration at the time of making a reference.

3·2 After the reference was received in the Commission, a notification No. 1(34)-Enc/73 dated the 17th March, 1973 incorporating salient features of the company's proposal was issued by the Commission and was published in all the important newspapers on the 24th March, 1973. The Commission also specifically addressed all those persons who had sent letters to the Department of Company Affairs in response to the two notices issued by the applicant company and to some other parties on its own initiative. In response to notification and these letters, 41 persons (as per Annexure 'D'), addressed letters to the Commission giving their comments regarding the H.L.L.'s proposal. In most of these communications, objection has been taken to the company's proposals. However, 3 parties have supported these proposals.

3·3 The main points highlighted in the various communications received by the Commission have been as below :—

(i) HLL are the largest manufacturers of synthetic detergents and if they are given licence for the manufacture of STPP also, they will utilise it for captive consumption and will thus have a tremendous cost advantage. This would very badly affect the existing small scale manufacturers of detergents. Further, if this expansion is allowed, it would threaten the entry survival and growth of medium and small scale manufacturers of synthetic detergents. Permission for this proposal will enable HLL to get about 45% of the raw materials at cost price.

(ii) HLL is a company in which foreign holdings are very large and as such the execution of this project, if approved, will result in its benefits mainly going to foreigners, resulting in a further drain on our limited foreign exchange resources.

(iii) The proposal envisages a very large component of foreign exchange.

(iv) The synthetic detergent manufactured in the small scale sector is of a fairly good quality and the quality can be further improved if the Government insists that the small scale producers should follow ISI standards.

(v) It has been the policy of the government so far, not to encourage captive consumers to make basic raw materials. This policy has been followed by the Government in several other industries like Nylon, Polyester fibre, Pharmaceuticals and Plastics etc. Also Alkyl Benzene, which accounts for only 15% of the final product-viz-Synthetic Detergents, is not being produced by manufacturers of Synthetic Detergents. If the HLL is permitted this project, it will be against this basic policy of the Government and will lead to vertical integration. At present no detergent manufacturer is making vital raw materials like STPP or sulphuric acid or both, for his captive consumption. No exception should be made in the case of HLL.

(vi) Presently there is only one manufacturer in the country for STPP. To have healthy competition and avoid strain on transport, three independent units may be established on regional basis by 3 independent manufacturers and not by captive consumers.

(vii) Prospects of demand in future do not justify the production of STPP as proposed by HLL. However, if future demand is expected to be larger than the capacity already established/sanctioned for establishment, then the Government would do better to invite applications for licences as has been done in the case of Cotton Seed Processing Units.

(viii) Techniques of producing these products are well established in the country and many Indian enterprises are technically equipped to undertake production of these. HLL's proposal, therefore, does not appear to bring in to the country any sophisticated or hitherto unknown technology which would be capable of making great impact either on quality or on cost of production.

(ix) This proposal is not consistent with most of the requirements laid down under Section 28 of the MRTP Act, 1969. It is neither in public interest nor consistent with the declared policy of the Government. It will lead to increased concentration of economic power in the hands of a foreign controlled company, which comes under the definition of "Larger Industrial House" by giving it a strong hold on both the final product and an important raw material and will result in unavoidable drain on country's foreign exchange resources.

(x) If it is considered necessary to increase the capacity in these fields, then a party which is not manufacturing synthetic detergents should be given licence to go in for the production of these items. An Indian company should be given preference to a foreign company.

3·4 If, however, the proposal is to be approved, it has been suggested that it would be subjected to the following conditions :—

(a) The licence for detergent manufacture given to HLL should be cancelled. In the alternative, the production synthetic detergents and cakes by HLL should be frozen at the present production levels and no further expansion should be allowed to them in these fields.

(b) Adequate steps should be taken by the Government to ensure that HLL makes available phosphates in adequate quantities at reasonable prices to other manufacturers of synthetic detergents.

(c) The proposal under consideration is sufficiently large to set up a separate company. The share of HLL in this new company should be around 26%. Public Financial Institutions & manufacturers of synthetic detergents should be invited to subscribe to the balance share capital along with other members of the public.

(d) Appropriate export obligation should be prescribed for the company.

3.5 Three parties have supported the proposal. These are :—

(i) Mr. P.S. Seetharaman,
'Sundari',
203/26, Luz Church Road,
Madras-4.

(ii) Government of West Bengal.

(iii) Indian Soap & Toiletery Makers' Association.

3.6 Shri Seetharaman has stated the following points in HLL's favour :—

(a) HLL is a large established business house.

(b) It is serving our nation for many years by giving large scale employment for engineers, auditors, chemists and labourers.

(c) It is selling articles of daily use on reasonable prices.

(d) The Government is earning revenue as a result of huge taxes being paid by the company.

3·7 The Government of West Bengal have supported the proposal on the following grounds:—

(i) Implementation of the project will encourage industrial investment in West Bengal which needs development of large scale chemical industry and growth of several ancillary and small scale industries.

(ii) This is the first offer of large investment in a backward region of West Bengal and will serve as a nucleus for attracting further investment.

(iii) It will help to improve the economy of the State by generating direct and indirect employment for several thousands of persons. It will also contribute to State revenues to the extent of Rs. 2 crores every year in the shape of sales and other local taxes. The contribution to the Central Exchequer by way of excise and import duty will be about Rs. 8 crores.

(iv) The current demand of synthetic detergent is much more than the approved capacity and therefore, there is a need for creation of additional capacity. Hence more STPP capacity.

(v) The proposal if approved will result in considerable saving of foreign exchange by eliminating imports.

(vi) The proposal will result in the production of about 40,000 tonnes of phosphate fertilizer by way of bye-product.

(vii) Industrial phosphate constitutes core sector investment and is within the legitimate area of investment of companies like Hindustan Lever.

(viii) HLL are not at present manufacturing this chemical and are not therefore, dominant in the field of industrial phosphate.

(ix) If the project is approved the share of the company in the total capacity so far approved and under consideration will be less than 20%.

(x) The company has agreed to abide by the Government's guidelines on dilution of foreign equity and this project is therefore, in keeping with the Government's policy for large and foreign companies to invest in core sector industries and for speedy dilution of foreign equity.

3·8 The Indian Soap and Toiletry Markers' Association has stated that :—

(i) The licensing of additional capacity for STPP will be in the interest of the country as it will enable faster growth of the synthetic detergent industry.

(ii) It will result in competition among suppliers of STPP, which will be helpful to the detergent industry in the long run.

(iii) It will provide better regional balance in the supply of STPP, since there is no other manufacturer of STPP in Eastern, Southern or Northern India.

(iv) The project involves manufacture of basic chemicals which are important for the country.

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3·9 Notice of hearing was given to 39 persons which included the present manufacturers of STPP and some intending producers of the same. Out of these, only 8 parties sent their representatives/come personally to attend and participate in the public hearing. These are :—

1. West Bengal Government;
2. Travancore Titanium Products Ltd;
3. Delhi Cloth & General Mills Co. Ltd;
4. M/s. Albright Morarji & Pandit Ltd., Bombay;
5. Shri A.G. Bakre of Bombay;
6. Shri H.A. Vora, (Indian Small Scale Chemical Manufacturers' Association);
7. Shri N.C. Mandal of Calcutta ; and
8. Shri Gurnani of M/s. Vivek Oil Mills, Bombay;

3.10 The points that were made at the hearing were generally speaking the same as had been raised in their communications which have already been summarised earlier. Some new points mentioned by the representatives are :—

(a) The West Bengal Government's representative brought to the notice of the Commission that soda ash will be available to HLL at Haldia from the Fertilizer Corporation's Complex at Haldia itself. To that extent there will be a saving in the cost of transport.

(b) M/s. Travancore Titanium Products Ltd., when they were contacted at the initial stages of the enquiry, had informed the Commission that their company is engaged in the manufacture of Titanium Dioxide Pigment. They have a letter of intent for establishing a Titanium Complex involving a number of products including STPP; but in their programme of implementation, which will take a few years, the manufacture of STPP will come only at a very late stage. Therefore, manufacture of STPP by M/s. Hindustan Lever Ltd. may not be of much relevance to them. However, subsequently at quite a late stage, this company showed a lot of interest regarding Hindustan Lever's project. It not only sent two letters stating its objections to the Hindustan Lever's proposal but also deputed its Managing Director, Shri Padam Kumar, IAS, to represent its view point before the Commission.

Shri Padam Kumar raised the following points during the course of the public hearing :—

(i) The company's main production is that of Titanium Dioxide Pigment. In making this, the company turns out considerable quantity of 800 M3 dilute sulphuric acid in the form of affluent waste and this is being dumped into the sea. This discharge polluting the sea water and is disrupting marinelife. This is also affecting the source of livelihood of a large number of persons who are pursuing fishing as their main occupation. These persons, it was stated, made a lot of hue and cry and this resulted in disruption of the company's work for sometime. A Commission of enquiry was appointed by the State Government to consider the problems arising by discharge of affluent containing sulphuric acid in the sea water. The Commission of enquiry stated that within one year this pollution should be stopped otherwise the company should be closed. As the closure of the company is not possible, it was decided that a scheme will be chalked out to recover sulphuric acid from the waste which is presently being dumped into the sea. The scheme envisages a production of 500 tonnes per day of sulphuric acid and to utilise this, the company proposes to set up a STPP plant in the near future. The company has no other alternative but to pursue this programme otherwise it cannot run its Titanium dioxide project. The company expects to start the site-work sometime in the year 1974. It has already prepared a Techno-economic feasibility report. It is also negotiating for technical know-how from an Indian company.

(ii) Other factors mentioned by the company's representative in support to this proposal were :—

(1) The project will be located not only in a backward area but in a backward state also.

(2) Since the project will be a consequence of waste recovery programme and better utilisation of resources, it may work out cheaper from the point of view of cost.

(3) The production will not be for captive use of the manufacturing company.

In view of the above, the contention of the representative was that this company's project which is bound to come up shortly, may be kept in view by the Commission while considering the application of HLL.

(c) Shri Kotian appearing on behalf of the existing producer viz. M/s. Albright, Morarji & Pandit Ltd. besides reiterating objections contained in the company's letter; to the Commission mentioned that M/s. Albright Morarji & Pandit Ltd. are prepared to share the know-how for the manufacture of STPP with any Indian party provided it is not :—

(a) A firm of consulting engineers

(b) A producer of synthetic detergent

(c) A party who proposes to manufacture STPP

(d) through Hydrochloric Process Route.

(d) D.C.M's representative said that he has no objection to the HLL's proposal but the Commission should consider that D.C.M. has also under active consideration a proposal to manufacture 20,000 tonnes of STPP. The company has, it was stated, submitted its application to the Government (Department of Company Affairs) for consideration under the MRTP Act. It was stated that the DCM has developed complete technology for the manufacture of STPP through its R & D Division and is also prepared to share it with other indigenous manufacturers. It was stated that the company has made a patent application for its know-how and the same is pending with the patent authorities.

(e) Other speakers did not make out any new points which have not been covered in the earlier discussion.

We will consider these objections in the Chapter relating to examination of the proposal.

CHAPTER IV

SCHEME OF FINANCE

4·1 According to the information supplied by the company, requirements for fixed and working capital during the projected period, from 1973 to 1978 will be as under :—

TABLE NO. VIII

(Rs. in lakhs)

Total outlay	Existing lines	New proposed lines	
		STPP	Caustic Soda/Ossein Project etc.
Plant & Machinery	754 + 125 for the year 1978	780	770
Building	155	130	100
Off sites	(Separate break up not given)	90	60
Total	1034	1000	930

4·2 Year-wise requirements of the Fixed Capital and increase in the working capital indicated is as under :—

TABLE NO. IX

Year	Existing Lines		New Proposed Lines	
	Fixed Capital	Increase in working capital	Fixed capital	Increase in working capital
1973	109	123	..	..
1974	197	105	..	..
1975	236	122	480	..
1976	272	165	986	14
1977	95	191	464	222
1978	125	210	..	131
	1034	916	1930	367

Total : Fixed Capital	2,964
Working Capital	1,283
	4,247

Sources of Funds

4·3 The expected sources of funds intimated are—

TABLE NO. X

(Rs. in lakhs)

	Existing Lines	Proposed Lines
(i) *Internal Generation*		
Net profit after interest and taxes	2499	19
Add : Depreciation	947	303
Less : Dividends	1791	247
Net internal generation	1655	75

TABLE NO. X—*Contd.*

	Existing lines	Proposed line
(ii) Issue of Share capital (including Premium of Rs. 326 lakhs)	66	699
(iii) Long term loans	98	1133
(iv) Bank Borrowing	131	390
Net available for investment	1950	2297
Total		4,247

4·4 Further details regarding Internal Generation are as below :—

Internal Generation of Funds

4·5 Internal Generation from existing and proposed lines has been estimated as under:—

TABLE NO. XI

	Existing Lines	Proposed Lines	Total
1973	161	(—) 1	160
1974	213	(—) 4	209
1975	270	(—)29	241
1976	303	(—)87	216
1977	315	13	328
1978	393	183	576
	1,655	75	1,730

4·6 Detailed break-up from the existing and future projects is as below:—

	1973	1974	1975	1976	1977	1978
Profit after interest & depreciation (Separate figures for interest are not available)	797	921	1,123	1,311	1,392	1,514
Less :						
Taxation	510	589	719	852	905	984
Dividend	270	270	287	310	327	327
Retained Profit	17	62	117	149	160	230
Add :						
Depreciation	144	151	153	154	155	190
Total funds available for plough back	161	213	270	303	315	393
Total	Rs. 1,655 lakhs.					

Internal Generation from New Proposed Lines

4·7 Internal generation during the projected years for the new lines will be as under :—

(Rs. in lakhs)

	1973	1974	1975	1976	1977	1978
Gross Profit before payment of interest but after depreciation	(—)1·00	(—)4·00	(—)6·00	(—)17·00	5·00	362·00
Less :						
Interest	..	..	..	3·00	58·00	86·00
Taxation	..	..	..	..	7·00	166·00
Dividend	..	..	23·00	72·00	76·00	76·00
Retained profit	(—)1·00	(—)4·00	(—)29·00	(—)92·00	(—)136·00	34·00
Depreciation	..	..	..	5·00	149·00	149·00
	(—)1·00	(—)4·00	(—)29·00	(—)87·00	13·00	183·00

Total : 75·00

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4·8 The above details will indicate that the Scheme of Finance furnished by the company covers the probable expenditure on the existing lines as also 4 new projects as below :—

(1) Project under consideration viz. STPP project

(2) Proposal regarding setting up of two units to manufacture synthetic detergents at 2 new locations in the State of U.P. & J. & K.

(3) A project for the manufacture of Caustic Soda (33,000 tonnes)

(4) A project to manufacture Ossein & Di-Calcium/phosphate (3,000 and 6,000 tonnes respectively).

4·9 On the basis of the composite Scheme of Finance furnished bv the Company, it would be noticed that a sum of Rs. 765 lakhs is proposed to be raised by the company by issue of new shares. The proposal regarding issue are as below :—

Year	Amount to be raised by fresh issue inclusive of premium
1975	233 lakhs
1976	532 lakhs

Out of the above Rs. 765 lakhs, Rs. 66 lakhs are for meeting the requirements of the existing lines and Rs. 699 lakhs for the new projects.

4·10 The company has, approximately, worked out that the issue of shares will involve a premium of Rs. 7·50 per share. On these calculations the issue of Rs. 765 lakhs will mean addition to share capital of Rs. 437 lakhs and premium of Rs. 328 lakhs. The company is proposing to issue bonus shares worth Rs. 240 lakhs. The capital of Rs. 1445 lakhs as on 31st December, 1973 will get increased to Rs. 2122 lakhs (1445+240+437) by the end of 1976. The increase in various years will work out as below :—

Years	1972	1973	1974	1975	1976	1977
Total Share Capital	1,445	1,685	1,685	1818	2,122	2,122

4·11 On the basis of the above, the dilution of the share capital will take place in two stages. The foreign share capital will be reduced to 79% in the year 1975 and 68% in 1976. However, during the course of the public hearing after discussion with the company's representative, it was decided that for dilution purposes only the project under consideration i.e. STPP project should be considered and dilution formula should be worked out with reference to this project only. We will mention our suggestions and the company's reaction to this at a subsequent stage in this report. However, in view of the willingness of the company to dilute the capital to 70% as a result of this scheme alone, we do not consider it necessary to give our comments on the Composite Scheme of Finance submitted by the company.

CHAPTER V

EXAMINATION OF THE PROPOSAL

5·1 STPP is one of the rawmaterials used for the manufacture of synthetic detergent where rapid and large expansion is envisaged, to replace the use of washing soap and this reduce imports of oil and tallow. The soap industry in the country is almost a century old. However, detergent powders have been developed during the last 15—20 years only. Detergent is intended to be a substitute for oil and fat-based soap. There is an acute shortage of facts and oils in the country and the prices of oils have been rising at a very steep rate. In the case of one oil only viz. groundnut oil, the figures submitted by the applicant company indicate that the rise in price has been abnormal during the last 5-6 years. The position regarding average groundnut oil price per tonne excluding sales-tax at Bombay during the years 1967-68 to 1972-73 has been reported to be as below :—

Year	Price
1967-68	3,600
1968-69	4,280
1969-70	4,829
1970-71	4,274
1971-72	4,100
1972-73	8,925*

*Price ruling on 25th July, 1973.

5·2 Besides rise in the cost of oil, there is general shortage of oils in the country and therefore the oil used in the soap industry needs to be diverted for human consumption. The prices of tallow in the markets abroad have also in the recent years shown quite high upward trends. In view of this, it will be necessary to change the washing habits and switch over from the traditional oil soap to non-soapy detergent. Thus the need for creating additional capacity for this item is well established and speedy steps are required to be taken to promote the indigenous production of the various items that are required in the manufacture of non-soapy detergent. STPP is one such important item.

5·3 Indigenous manufacture of STPP will also lead to considerable savings of foreign exchange. The D.G.T.D. in one of their comments has worked out these savings as below :—

> "Demand for industrial phosphates in the country is fast outstripping the indigenous production. This plant, by producing 30,000 tonnes will eliminate the import of this quantity of sodium tripolyphosphate, at c.i.f. cost of about Rs. 1,600 per tonne, or a total savings of Rs. 480 lakhs per annum. This would give a net saving of Rs. 418 lakhs per annum after excluding annual imports of sulphur and components."

The applicant company has, however, worked out this saving at Rs. 5 crores i.e. 30,000 tonnes @Rs. 1,700/- per tonne.

5·4 For determining the demand of STPP in future years it is necessary to work out the demand for synthetic detergent. Various estimates have been made regarding such demand. These are given below in a tabular form :—

TABLE NO. XIII

Year	Indian Petro-Chemicals Corporation	†IS&TMA	*Hindustan Lever	Task Force	Sub-group on soaps & detergents.
1973-74	88,500	98,000	92,000	..	62,000
1978-79	2,50,000	3,23,000	3,42,000	4,17,000	3,55,000
1982-83	..	..	6,41,000	..	..
1983-84	..	..	..	8,30,000	..

*Refers to calendar year.

†Indian Soap and Toiletries Manufacturers Association, Calcutta.

5·5 For our present enquiry we will only take into account the demand estimates upto the financial year 1978-79 which is the period covered under the Vth Five Year Plan. The Task Force on petro-chemicals have estimated the demand of synthetic detergent, at two levels. The higher level demand is based on the past trends, a growth rate of 36 per cent per year (for the period 1965 to 1971), while the lower level demand is based on limited production and availability of this product during the Fifth Plan. Demands given in column 5 of the above table correspond to the higher level demand. The Task Force for petro-chemicals felt that the alternative corresponding to the higher level would be distinctly preferable to the lower level demand. It may be mentioned that the lower level demand estimates of the task force for the two years i.e. 1978-79 and 1983-84 were placed at 2,50,000 tonnes and 6,50,000 tonnes respectively.

5·6 Planning Commission has estimated the production of synthetic detergents to be Rs. 29·3 crores worth (quantity not given) in 1973-74. The sub-group on soaps and synthetic detergents of the Planning Commission Committee on Essential Commodities and articles for mass consumption, on the basis of estimated production level of soap and detergent and the respective market price has noted that the value of production estimated by the Planning Commission was on the lower side. The group therefore, made some adjustments to the 1973-74 base figures and revised the 1973-74 estimates. A rate of 26·5% per annum growth (corresponding to the growth rate for the period 1968-71) was applied to this estimate to arrive at the following estimates for the years 1973-74 and 1978-79.

TABLE NO. XIV

Estimated Production

	Synthetic Detergents		Soaps	
	Tonnes	Rs. in crores	Tonnes	Rs. in crores
1973-74	62,000	44·8	6,50,000	159·0
1977-89	2,20,000	144·0	9,90,000	211·0

5·7 This additional soap production will result in a draft on oil and fats to the extent of additional 1,30,000 tonnes over and above the current oil and fat consumption of the soap industry as a whole. The projected level of production of soap in 1978-79 may be difficult to achieve unless :—

(a) the tallow imports are significantly increased, and

(b) there is some diversion of edible oil for soap production.

5·8 A third alternative could be to increase production of synthetic detergents to replace soap to a large extent. The anticipated deficit in fatty material is about 65,000 tonnes corresponding to a production of about, 2,00,000 tonnes of soap. This could be replaced by increased production of 1,35,000 tonnes of synthetic detergents. If this basis is adopted, the production of detergents in the year 1978-79 may be 3,55,000 tonnes.

5·9 The demand estimates of IS&TMA (India Soap and Toiletries Manufacturer's Association) are based on past trends and consumption pattern of synthetic detergent in foreign countries.

Consumption of Synthetic Detergents

5·10 In India per capital consumption of Synthetic Detergents in 1971 was 0·9 / Kilogram whereas in some of the more advanced countries in other parts of the world, the per capital consumption of Detergents has reached a level of 8·09 kilogram. Thus on an average, in India, a person consumes only about one hundredth of what his counterpart does in advanced countries. There is, therefore, an urgent need to make available this important item of mass consumption in larger quantities.

5·11 Though the Planning Commission has not yet taken a final decision on the report of the sub-committee on Essential Commodities & Mass Consumption, for our purposes we will adopt the demand for synthetic detergents worked out by this Committee for the year 1978-79 as this appears to be quite realistic to us considering the various aspects taken into account by the Committee in basing its conclusion. Hence the demand for synthetic detergents at the end of the financial year 1978-79 will be taken at a figure of 3,55,000 tonnes.

5·12 Though we are not, in the present enquiry, directly connected with the present production of synthetic detergents etc. we will make a passing reference regarding the present capacity in this field and the capacities that are likely to be created by the end of the year 1978-79. The position very briefly, in this matter, is as below:—

(a) Installed capacity	55,700 tonnes
(b) Approved capacity	52,000 tonnes
(c) Capacity covered by Licences & Letters of Intent issued	1,31,700 tonnes
Total	2,39,400 tonnes

5·13 Besides the above, there are presently 58 applications for the manufacture of synthetic detergents pending for consideration before the Government. These cover a capacity of 6,35,800 tonnes per annum. These applications are reported to be at the final stage of processing.

5·14 To support the preposition that demand of synthetic detergents is fast increasing, we would like to give the figures of the total production of the existing 4 units in the country during the years 1968 to 1971. The figures are :—

TABLE NO. XV

Year	Total production (in tonnes)	Annual rate of growth (percentage)
1968	18,704	12
1969	22,914	22
1970	31,386	37
1971	53,733	71

Raw Materials required for the Manufacture of Synthetic Detergents :

5·15 The main raw materials used for the manufacture of Synthetic Detergents are :—

(i) Detergent Alkylate (Alkylate Benscne or Docysel Benescne)

(ii) Sodium Tripolyphosphate (STPP)

(iii) Soidum Sillicate

(iv) Caustic Soda etc.

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5·16 A commercial detergent formulation contains an organic compound, which imparts the basic surface active property and the undermentioned builders for obtaining the undermentioned characteristics :—

—phosphate such as STPP and sodium pyro phosphate as foam extenders (25—40%)

—sodium carboxy cellulose to improve soild and dirt suspension

—fluorescent dyes as brighteners

—sodium silicate to avoid aluminium corrosion in washing machines.

Percentage of STPP Content in Detergents

5·17 For working out the demand of STPP in the next few years it is necessary to work out the percentage of STPP in synthetic detergent formulation. The Commission in this connection has made detailed enquiries from various sources. In addition to the four main manufacturers of detergents, 12 other parties have given information on this aspect :—

TABLE NO. XVI

Name of the party	STPP content
1. M/s. Ultra Marine & Pigments Ltd., Bombay	30%
2. M/s. Swastik Oil Mills, Bombay	30%
3. M/s. Gala & Company, Bombay	30%

TABLE NO. XVI—*Contd.*

Name of the party	STPP content
4. D.C.M., Delhi	35—40%
5. Tata Oil Mills Company Ltd., Bombay	20%
6. Indian Petro-chemicals Corporation, Gujarat	25—30%
7. Vivek Oil & Soap Industries, Bombay	30%
8. D.G.T.D.	30%
9. Witoo Pvt. Ltd., Fort, Bombay	30%
10. M/s. Albright, Morarji & Pandit Ltd., Bombay	5—30%
11. Kusum Products	30%
12. India Laboratory Products	25—30%
13. Standard Detergents & Chemicals	25—30%
14. Rajasthan Chemical Corporation	25%
15. Union Home Products	30%
16. Hindustan Lever	30%

5·18 The Indian Standard Institution in their Specification for synthetic detergents have included a quantity of 40% of STPP for detergent formulation. In a preliminary report that has been received by the Commission from an intending producer of STPP the content of STPP and/or tetra sodium pyrophosphate has been estimated between 30 to 50%. During the course of the public hearing, the consensus of the opinion was that in a tonne of synthetic detergent, the STPP content will be around 300 Kg. Considering all the above views and opinions, we feel that it would be safe to presume the STPP content in detergents to be of the order of 30%.

5·19 Applying this rate of 30% on the accepted demand of 3,55,000 tonnes of synthetic detergents by the year 1978-79, the requirements of STPP will work out to approximately 1,08,500 tonne. Adding to this 25% for idle capacity, etc., the capacity that needs to be created by the year 1978-79 will be of the order of approximately 1,33,000 tonnes. It appears necessary to create this capacity to meet the expected demand of 3,55,000 tonnes of synthetic detergents by the year 1978-79.

5·20 With the above background we will consider the existing capacity of STPP in the country and the capacity that is likely to be created by the year 1978-79.

Capacity

5·21 At present there are 3 units which have been licensed to manufacture STPP. They are :—

1. M/s. Albright, Morarji & Pandit, Bombay
2. M/s. Excel Industries Ltd., Bombay
3. M/s. Star Chemicals Private Ltd., Bombay

having licensed capacity of 25,000, 1,000, 180 tonnes per annum respectively . Of these, the second one i.e. M/s. Excel Industries Ltd. has not installed any capacity. They have not been able to produce STPP due to their difficulty in getting raw material for their phosporic acid plant. The present installed capacity of M/s. Albright Morarji &Pandit Ltd. is 18,000 tonnes and that of M/s. Star Chemicals Private Ltd. 180 tonnes. Installed capacity of Albright Morarji had been 12,500 tonnes per annum for 4 years i.e., 1967-68 to 1970-71. It was raised to 18,000 tonnes in the year 1971-72. Thus total installed capacity in 1971-72 was only 18,180 tonnes per annum.

5·22 As against the above capacities, the actual production in the years 1969 to 1972 (as reported by D.G.T.D.) had been as below :—

A) *M/s. Albright, Morarji & Pandit Ltd., Bombay*

Years	Actual Production in Tonnes
1969	4937
1970	9134
1971	1971
1972	16,937

(B) *M/s. Star Chemicals (Bombay) Pvt. Ltd. Bombay*

They did not report production for STPP. Recently, they have reported to have produced 68·5 tonnes of STPP in December 1972.

5·23 **Intending Manufacturers**

(A) *Parties who have already secured the Licence/Letters of Intent*

(a) M/s. Ballarpur Paper & Straw Board Mills Ltd. have a licence to manufacture 10,000 tonnes STPP per annum subject to clearance under the MRTP Act. This concern has applied for enhancement of STPP capacity from 10,000 tonnes per annum 24,000 tonnes per annum as the company even at this stage has started feeling that it will be having surplus chlorine. This application is under consideration. This compnay will manufacture STPP by hydro-chloric acid process route. It has entered into firm agreement with the Government of Mysore regarding its requirement for land, water and electricity and will be setting up the plan at Karwar.

(b) M/s. Travancore Titanium Products Ltd. were issued a letter of intent for 36,000 tonnes of STPP per year in July 1972. We have mentioned about the proposal of this company in detail in Chapter III regarding objections and hence the same will not be repeated here.

(B) *Details about parties whose application are under consideration of the Government*

M/s. D.C.M. have also applied to the Government for a licence to manufacture 20,000 tonnes of STPP. Their application has been considered by the Licensing Committee subject to clearance under the Monopolies & Restrictive Trade Practices Act. The company is pursuing this aspect further. It claims to have done considerable research work in developing the technology for the manufacture of STPP. Mention about this has also been made in Chapter III.

(C) *Details about applications recently made*

Recently 6 more applications have been made for the manufacture of STPP. Of these two, those of M/s. Bharat Commerce & Industries (20,000 tonnes per annum capacity) and Tata Mills Ltd., Bombay (17,000 tonnes per annum capacity) are being referred to the Licensing Committee. The other four are from (i) M/s. Aminchand Pyare Lal (STPP 30,000 tonnes per annum, Phosphoric Acid for captive use 30,000), (ii) C.R. Jain of Shakti Nagar, Delhi (STPP 30,000 tonnes per annum), (iii) Christopher John of Bombay (Sulphuric Acid 54,000, phosphoric acid 19,000 and industrial phosphate 30,000) and (iv) M/s. S.R.P. Tools Ltd., Madras (STPP 10,000 tonnes per annum). These are still in the preliminary processing stage.

5·24 M/s. Hindustan Copper Ltd., Calcutta, a Government of India undertaking has informed the Commission that they have applied to the Government for a licence to manufacture 20,000 tonnes of STPP. This application was made on 20th June, 1973. The company has got a project report prepared and expects to complete construction of plant etc. within 30 months from the date of sanctioning of the project by the Government. Phosphoric acid for the manufacture of STPP will be available to this Corporation from its own Acid-cum-Fertilizer plant under construction at Khetri copper complex.

5·25 The complete picture relating to the existing capacity, capacity for which letters of intent have been issued, capacity recommended and other capacities applied for is as follows :—

Existing Capacity

Name of the Existing Manufacturer	Sanctioned Capacity (Tonnes)	Installed capacity (Tonnes)
1. Albright Morarji · · · · · ·	25,000	18,000 Extra 25,000 capacity is also envisaged.
2. Excel Industries · · · · · ·	1,000	They have not been able to produce STPP due to their difficulty in getting raw materials for phosphoric acid plant.
3. Star Chemicals · · · · · ·	150	180

Capacity for which letters of intent, etc. have been issued

Name of the manufacturer	Annual capacity sanctioned (Tonnes)	Remarks
1. Ballarpur Paper & Straw Board Mills Ltd.	10,000	An application for substantial expansion for a capacity of 14,000 tonnes per year has also been made.
2. Travancore Titanium Products · · ·	36,000	No progress has been made so far.

Capacity Recommended

Name of the manufacturer	Annual capacity (Tonnes)	Remarks
1. D.C.M. Chemical Works · · ·	20,000	The case was considered by the Licensing Committee and is now under consideration for M.R.T.P. Clearance.
2. Hindustan Lever · · · · · ·	30,000	Do.
3. Bharat Commerce & Industries Ltd. · ·	20,000	Summary for licensing committee recommending the proposal has been submitted.
4. Tata Mills Ltd. · · · · · ·	17,000	Summary for the licensing committee is under preparation.

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Other applications

Name of applicant			Capacity applied for
1. Satyapal Partner Amichand Pyare Lal New Delhi.	STPP	—	30,000 Tonnes*
2. C.R. Jain, Shakti Nagar, New Delhi ·	STPP	—	30,000 ,,
3. Christopher John of Bombay · · ·	Industrial Phosphate	—	30,000 ,,
4. Shri S. Ram Ch. Subramaniam of M/s. S.R.P. Tools Ltd., Madras.	STPP	—	10,000 ,,
5. Hindustan Copper Ltd. · · · · ·	STPP	—	20,000 ,,

*To be produced through hydrochloric acid process route.

5·26 If all the applications fructify, the installed capacity of the existing and future units in the country would be 2,93,180 TPA say by the end of 1978-79.

5·27 We have considered the claims of various intending manufacturers of STPP, besides the applicant company. After taking into account all the facts, we feel that at best the following capacities may materialise by the year 1978-79 :—

		Tonnes
1.	Ballarpur Paper & Straw Board Mills Ltd	10,000
2.	M/s. Travancore Titanium Products, a Public Sectors Undertaking	36,000
3.	D.C.M.	20,000
4.	Albright, Morarji & Pandit Ltd. (existing sanctioned capacity)	25,000
5.	Applicant Company	30,000
	Total	1,21,000

After taking into account all the aspects, we are of the view that the other applicants whose applications are still in the initials stages may not be in a position to complete all the formalities and start production by the year 1978-79. The capacity that is likely to be installed by the year 1978-79 (including the proposal of the applicant company) will be of the order of 1,21,000 tonnes as against the expected demand of 1,33,000 tonnes. Hence, in order to avoid shortages, there is an immediate need for sanctioning more capacity and the party who can start production at the earliest should naturally get preference.

Criteria for Permission

5·28 Before commenting further on the proposal of HLL, we would like to mention here the criteria that the Commission would like to keep in view in considering the proposal of the applicant Company.

5·29 In forming its opinion on an application by any person as to whether he should be permitted by the Central Government to establish a new undertaking for production of any goods, the Commission has, as required by Section 28 of the MRTP Act, to take into account all matters which appear in the particular circumstances to be relevant. The Commission must ensure production of such goods in such volume and at such prices as will meet the requirements of the defence of India and home and overseas market. The requirements must not only be the present requirements but also the projected requirements for a reasonable time. This can be ascertained from the reports of studies carried out by several governmental and other reliable authorities or bodies. The overriding consideration should always be not to permit any shortages of such goods as far as the Commission can envisage the future requirements. It is a matter of common experience that shortages lead firstly to smuggling and secondly to black marketing. In both cases there is widespread evasion of taxes. The overriding consideration, therefore, must always be to avoid shortages.

5·30 Section 28 (e) requires that the Commission must encourage new enterprises as a countervailing force to the concentration of economic power to the common detriment. This objection can best be achieved by recommending permission to be given to non-monopoly houses using entirely Indian capital and technology. If there is such applicant ready, willing and able to produce such goods, he should be preferred to other categories of producers. It may be that such applicant is setting up a captive unit for production of goods to be used in his other manufacturing activities. This is popularly known as vertical integration. Between two applicants, one setting up an independent unit and the other one setting up a captive unit, preference should be given to an independent unit. Such a course acts as a countervailing force to the concentration of economic power to the common detriment. It also reduces unfair competition by giving a price advantage to the owner of the captive unit.

5·31 If a non-monopoly house with Indian capital and technology is not willing to manufacture the goods, the Commission should normally recommend a monopoly house which uses entirely Indian capital and technology. Between two such monopoly houses, one wishing to set up a captive unit and the other an independent unit, preference should naturally be given to the one who is setting up an independent unit.

5·32 If there are no applications with entirely Indian capital and technology, in the interest of industrial development of the country and the avoidance of shortages the country must utilise foreign capital in a manner most advantageous to the country. It is acknowledged by our Government that Indian capital needs to be supplemented by foreign capital not only because national savings will not be enough for the rapid development of the country on the scale one would wish but also because in many cases scientific, technical and industrial knowledge and capital equipment can best be secured along with foreign capital.

5·33 The next preference should, therefore, be given to Indian entrepreneurs who own majority of the share capital of the entreprise and foreign share capital is in minority provided foreign technology is essential for the industrial development of the country in respect of the relevant goods. Here again, the preference is to be given to enterprises which are not monopoly enterprises.

5·34 Next in order of preference come enterprises there major part of the shareholding is in foreign hands but the enterprise is not a monopoly enterprise. In both cases where there is foreign capital employed, preference should be given to an applicant who is setting up an independent unit over an applicant who is setting up a unit for captive consumption.

5·35 The last in order of reference come monopoly houses with majority to their capital held by foreigners. There again preference must be given to an applicant who is setting up an independent unit over an applicant who is setting up a unit for captive consumption.

5·36 We must, however, observe that on the occasion of each expansion or setting up of a new undertaking, applicants, major part of whose share capital is in foreign hands, should be willing to dilute the capital by issue of a substantial portion of the fresh capital required for the new undertaking by offering it to Indians at least in accordance with the Government policy formulated and announced from time to time. The Commission, would however wish and may in considering relevant circumstances, insist on a larger degree of capital dilution then the minimum acceptable to the Government, depending on the circumstances of each case.

5·37 The above criteria can at best be broad indications. There can never be any mechanical or inflexible rule laid down for criteraining applications. Each case must be determined on its own circumstances. Because, apart from the considerations indicated above, there are other factors such as where an applicant which falls within any of the above categories is willing to set up the new undertaking in a backward area or in a region where there is no other industry for the production of the relevant goods, as this will reduce disparities in development between different regions and more especially in relation to areas which have remained markedly backward. It is also in national interest that the percentage of shareholding of foreigners should be gradually reduced. Our Government has often stated that as a rule the major interests, ownership and effective control of an undertaking should be in Indian hands, and that the Government will not object to foreign capital having control of shares for a limited period, if it is found to be in the national interests and each individual case will be dealt with on its merits. Wherever Indian with requisite technical qualifications are available for employment, they should be preferred to non-Indians and where technical skill or experience is required, foreigners may be employed until Indians are trained for the posts in the quickets possible manner. One of the factors to be taken into consideration in each case will necessarily be the willingness of an applicant with foreign capital to dilute such foreign holding and the extent of such dilution. This in itself achieves the object which serves public interest. The past or the proposed contribution of the applicant to research and development of indigenous technology is another factor. Indianisation of management and contribution to development of managerial skills is also a factor to be taken into consideration. The possibility of export of goods manufactured in India and earning of foreign exchange is another relevant consideration. The Commission has also to form an opinion on the capacity of the applicant to carry out the scheme judged from the past preformance of the applicant or from other date.

5·38 All such applications have to be determined objectively by the Commission after taking into account all matters which appear in the circumstances to be relevant. In a given case, there may be circumstances in favour of and against a particular applicant. The Commission has, therefore, to strike a balance and give its own opinion as to what will be in the best interests of the country and the common good. There can, therefore, be no mechanical or inflexible rule laid down, and each case must be determined on its own merits.

5·39 All applications must, however, be determined taking into considerations the overriding purpose of avoiding shortages.

5·40 The application of HLL has been examined in detail keeping in view the above guide lines. We are satisfied that immediate steps should be taken to augment the supply of STPP in the near future to meet the shortage of oil and soap, etc. On a revinew of the claims of the existing and future entereprenuers in this field we find that at present there is only one source of production of this material and that is M/s. Albright, Morarji and Pandit Ltd. This concern has recently reached a capacity of 18,000 tonnes (against a sanctioned capacity of 25,000 tonnes) and hopes in future not only to reach this capacity but to go in for future expansion and bring the capacity to 50,000 tonnes. This company has also foreign shareholding to the extent of 46% at present. It was stated during the course of the public hearing that steps are being taken to bring this equity to a little less than 40% and by and by it will be brought down to 26%. But at present the foreign shareholdings in the company is of the order of 46% and this is quite substantial.

5·41 This producer is also situated in the western region and depending on him only for the supply of STPP for future needs will also create great Regional imbalance. Further, allowing only one producer to expand in the same line and continue to be a monopolist in that line will be against the letter and spirit of the M.R.T.P. Act. Therefore, we feel that a second source of supply is absolutely necessary and needs to be developed.

5·42 The other claimants whose capacity may materialise by 1978-79 are :—

(i) *M/s. Ballarpur Paper & Straw Board Mills Ltd.*

This company proposes to follow hydrochloric acid process route for the manufacture of STPP. Though we wish all success to this company, we are not very sure how far the technology proposed to be adopted, which is going to be an altogether new one for this country, will ultimately succeed. The Commission during the course of its enquiry has been informed that a large phosphoric plant based on I.M.I. (MCL) process in Brazil has closed down and to the owner is switching over to sulphuric acid process route. It has also been pointed out that there are following disadvantages of the hydrochloric acid process route under Indian conditions:—

(a) There is not much likelihood of large scale centralised production of hydrochloric acid.

(b) The disposal of bye-product, calcium chloride obtained in the hydrochloric acid process route will to pose a serious problem.

(c) Hydrochloric acid process route requires some organic solvants which are not manufactured in India.

(d) Hydrochloric acid is extremely corrosive.

(ii) *Delhi Cloth Mills Company Ltd.*

This company's claim before the Commission was that it has developed its own technical know-how and will not be importing the technical know-how from outside the country. However, the process invented by this concern has not been patented so far and we are not in a position to know how far their technology will be able to help in the manufacture of STPP. The technology proposed to be employed has not been fully tried so far and we are not very sure how much time this unit will take to come to a satisfactory know-how in this line.

(iii) *M/s. Travancore Titanium Products*

It is the third manufacturer which is likely to come in the field. It is a public sector under taking. The written representations received from this concern at the late stage of this enquiry and the pleadings made by its managing director during the course of the public hearing do give an indication that this concern now seems to be quite serious about setting up its STPP plant, even though till very recently the D.G.T.D. was of the view that their scheme may not be implemented. Further we are not sure how much time this scheme will take to materalise. Even during the course of the public hearing it was stated that the compnay has not conducted any study about the market for STPP.

5·43 On the basis of the criteria mentioned by us we would have certainly like to give preference to these other undertakings vis-a-vis the applicant company where not only there is a substantial foreign shareholding, but in whose case permission to expand will also lead to vertical integration. However, we find that there are a lot of countervailing factors in favour of the applicant compnay. These are :—

(1) As already stated earlier, the only manufacturer ot STPP presently is in the western region. No one else so far has applied for a capacity in the Eastern Region. HLL's is the only proposal for setting up a STPP unit in the Eastern Region. From the point of view of maintaining parity in different regions, we do feel that region-wise capacities are necessary and HLL's proposal should get preference from this angle.

(2) HLL is a professionally managed Company. The Commission visited the detergent factory of this concern at Bombay and discussed the proposal with the company's representatives. We were greatly impressed by the sincerity of purpose shown by the managment. We feel satisfied that the company will be able to go ahead and set up the plant in the quickest possible time.

(3) The Compnay has been in the field of synthetic degtergents since past many years. It started production with a capacity of 6,600 tonnes per annum in its factory at Bombay in the year 1959. Also, this has been the concern which has been able to utilise its capacity almost fully in this field. A company with such a record can surely be trusted for better performance in the future also.

(4) The field where the compnay wants to expand is the field where the Government has permitted a concern of this type to expand—i.e., Core Sector.

(5) The company's outlook is research oriented. We had an occasion to visit the Research Centre of the Compnay at Andheri, Bombay and we were very happy to see is working. A discussion about its working has been made in Chapter II of this report. We feel that it will be possible to undertake the manufacture of the proposed product with the know-how proposed to be acquired and the basic facilities available at its R & D. Centre in the shortest possible time.

(6) The location of the plan is in a backward area and while some of the claims made by the company may (like those relating to employment potentialities, etc.) appear to be far fetched, it cannot be denied that the setting up of the proposed project at Haldia will definitely boost the economy of the area and the State of West Bengal.

5·44 However, the factors that go against the company are :

(i) It has large foreign shareholding.

(ii) Permission to manufacture STPP to this concern will lead to what has been described earlier—as 'vertical intergration.'

(iii) Neither the Company nor its foreign shareholder possess any expertise or technical know-how in the field of STPP. They propose to import the technology from abroad.

5·45 These are also the major objections against this company's taking up this project and these have been discussed earlier in Chapter III. We have, therefore, to find out as to how best these objections should be met if the applicant company is to be permitted to go into production at the earliest possible time to avoid shortage in future.

5·46 Regarding dilution of foreign shareholding the applicant compnay's proposal was that it will abide by the Government's guide lines in the matter of dilution of its foreign equity. The cost of the project has been estimated at Rs. 10 crores and according to the guide lines of the Government 40% of this cost should be met by issue of shares to the Indian public. This 40% will be inclusive of the premium that the Controller of Capital Issues may permit the compnay to charge. The proposal of the applicant company before the Commission was that Rs. 4 crores will be raised by issue of shares to the Indian public and bifurcation of this Rs. 4 crores between share capital and premium will work out to Rs 2·28 crores and Rs. 1·72 crores respectively. The effect of this issue will be that the foreign holdings in the share capital of the company will come down from 85% to 75% only, after contemplated bonus issue of Rs. 240 lakhs. The Commission considered that dilution to this extent will not be sufficient and therefore proposals were made to the applicant company during the course of the public hearing to bring the foreign shareholdings further down. The company in the first instance pointed out that there were certain difficulties in diluting foreign shareholding beyond the level contemplated in the guide lines namely :

(a) This will lead to additional cost which will make the products less competitive. Interest on borrowed capital is less than the dividend at the rate at which the Company has been paying it, if the money is raised by increasing the share capital,

(b) Disadvantage to the shareholders,

(c) Adverse effect that any departure from the guide lines may have on the Government's International creditibility.

5·47 However, after some more discussion, considering the special features of the project, the Chairman of the Company has agreed to the dilution of foreign shareholding in the company so as to bring it down to 70% as a result of this project alone. They have, however, suggested some conditions to the dilution viz.--

(a) This proposal will be honoured only in the event of the Commission recommending the project and the Central Government allowing it to go through.

(b) It will not operate as a precedent for any of the companies' future projects and that each project will be considered on its own merits.

5·48 The second main objection relates to 'vertical integretion'. It is true that in this country at present the existing manufacturers of synthetic detergents do not manufacture STPP and to this extent the applicant company will have an advantage over them in the matter of supply of this basic raw material. However, there are other companies in the country which make some of the basic raw materials for their own captive consumption. During the course of the public hearing, the applicant company's representatives stated in clear words that :—

(i) It will be their endeavour to,

(a) ensure equitable distribution of STPP produced by them,

(b) make it available to small scale manufacturers of synthetic detergents by making special allocation in their favour. Under Govt. control if so desired by the Govt.

(c) charge the same price from other manufacturers as will be charged by the company for its own captive use. For this purpose the company is prepared to maintain separate accounts regarding this product in such manner as may be prescribed by the Government and that their accounts will be open for inspection to indicate that no discrimination is made in the matter of charging of the price for captive use and for outside supplies.

5·49 In this connection, we may also mention that the present proportion of HLL in the field of synthetic detergents will get substantially reduced in future. The capacity already licensed and for which letters of intent/licences have been issued comes to 2,39,400 tonnes (Please see para No. 5.12). Even if the capacity covered by licences and letters of intent is ignored, the total capacity installed and regularised by the task force, works out to 1,07,700 tonnes. HLL's share in this comes to 46,000 tonnes. This works out to approximately 43% of the total capacity.

We have mentioned at para No.51·13 that there are 58 applications covering a capacity of 6,35,800 tonnes. These include three applications of HLL for a capacity of 42,000 tonnes. HLL during the course of public hearing, informed the Commission that they are presently interested only in two factories—one in U.P. and the other in the State of Jammu & Kashmir. The total capacity for these factories applied for comes to 28,000 tonnes. The future capacity of HLL will, thus, rise to 74,000 tonnes as against an expected capacity of 8,75,200 tonnes (2,39,400 already covered by licenses and letters of intent plus 6,35,800 covered by applications made). The HLL's share in this prospective capacity will be approximately 8·5%. Even if all the applications do not fructify, still the present dominent position of this concern is bound to go down substantially. Therefore, we consider that the grant of permission to HLL to produce STPP, even though it will be in the nature of a vertical integration, may not be much significance in the face of stiff competition that the company is expected to get in future from the existing and new entrepreneurs entering the field of synthetic detergents.

5·50 In the matter of technology, it was stated that M/s. Albright, Morarji and Pandit Ltd. is the one indigenous source from which it may be possible to get know-how, though it may not be quite satisfactory. However, M/s. Albright, Morarji & Pandit are notprepared to share their know-how with a party manufacturing synthetic detergents. Therefore this indigenous source is to be ruled out as far as the HLL is concerned. The company, however, during the course of the public hearing stated in un-equivocal words that it will be willing to buy indigenous technology if it is available.

5·51 We consider that these safeguards meet these most important objections against the company's proposal and therefore we will incorporate these in suitable terms in our recommendations pertaining to this proposal.

Eutrophication Problem

5·52 An important point that was raised during the course of above enquiry and with which not only HLL is concerned but which is a problem common to all STPP/phosphate manufacturers, is the problem of 'eutrophication' (or pollution' in common parlance). It has been mentioned that discharge of water in rivers causes eutrophication and makes the marine-life also unsafe. In recent years, it has been noticed that discharge of sewage wastes containing appreciable amount of phosphates into lakes countributes to excessive growth of 'algae', but in lakes, ponds, and other slow moving or stagnent waters, the availability of excess nutrients because of phosphate discharge can cause excessive growth of algae. The process by which lakes become clogged over a period of time with a bundant growth of algae is technically called "eutrophication" or in other words, over-fertilization with nutrients. A clear distinction needs to be drawn between 'eutrophication'—Condition of over fertilisation of natural waters and 'pollution' by offensive and possibly toxic effluents. Pollution is a world wise problem where as eutrophication is an application only of certain waters, storage lakes, and reservoirs, as yet found only in some areas of U.S.A., Canada, Switzerland and Sweden.

5·53 We have been informed that 'Algae' requires many elements for its growth, the most important in terms of quantities being carbon, nitrogen, potassium, mangesium, phosphate and sulphur. There is no evidence to indicate that 'phosphate' is the nutrient *chiefly* responsible for eutrophication. On the other hand, phosphate is reported to be a nutrient which can be effectively trapped, if necessary, by carefully planned agricultural operations and by properly functioning septic systems.

5·54 Conditions (physical geographical features, etc.) in India are similar to those in the United Kingdom. In U.K. the Standing Technical Committee on Synthetic Detergent which was appointed in 1957 has been continuously reviewing the role of phosphates vis-a-vis eutrophication as also the possible effects of the phosphate substitutes in detergent formulations. The Twelth Report of the Committee published in 1971 indicates that even if phosphate free detergents were manufactured in Britain, it is unlikely that growth of the 'algae' would be very much inhabited. Relevant extracts from the 12th and 13th report of this Committee are given below :

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"(j) We have devoted considerable time and effort to a study of the problems attributed to phosphate residues derived from detergent products and their relation to the processes of eutrophication. We have concluded that no significant problem has been shown to exist in the U.K. and there is as yet no case for recommending specific treatment to remove phosphate from sewage effluents, although suitable processes are available.

We have also studied the possible effects of materials such as NTA (sodium nitrilotriacetate) which have been introduced in the USA, Canada and Sweden as substitutes for part of the phosphate content of detergent powders. Before we could recommend the use of such materials further research would be required to establish all the necessary safety factors, to study their biodegradability under U.K. conditions and to determined their effects on the operation of sewage treatment works and rivers particularly in relation to toxic metals."

In the Thirteenth Report published in 1972 also the above views have been upheld :

"(c) We have reviewed the problems attributed to phosphate residues derived from detergent products. We maintain our views that no significant problems has been shown to exist in Great Britain. Analytical data have been brought upto date.

(d) Support has been given to our previously expressed views about the use of substitutes for phosphates such as NTA (nitrilotriacetic acid) by action taken overseas. Laboratory experiments have confirmed that NTA would be only partially removed during sewage treatment in the winter months. We recommend that products containing NTA should not be used in this country."

5·55 Considering the various aspects of eutrophication problem we are of the view that this will not be of significant magnitude in our country for sometime to come because of the following factors :—

1. Our per capita consumption of synthetic detergents as present is very low. Even when it goes up, it will be, as pointed out earlier, roughly 1/100th of what it is in some other countries.

2. We do not have many lakes or stagnent water rivers. Drainage here is generally through three flowing rivers and water ways which do not end up in inland lakes but reach the sea.

3. The following expert opinions obtained by the Commissions also indicate that the 'eutrophication' problem will not be a major problem in this country for many years :—

   (a) *Indian Standard Institution :* I.S.I. has stated that even though STPP is considered to give rise to water pollution, no problem has yet arisen in India. They have also mentioned that search for phosphate replacement is continuing throughout the world but so far no other product has been standardised to replace STPP in the detergent manufacture.

   (b) Dr. J. J. Mehta of India Petro-Chemicals Corporation Baroda has expressed the following views in this regard :—

   "To the best of our knowledge, the use of sodium tripolyphosphate in synthetic detergents continues in nearly all advanced countries. However, there was some opposition from 2 or 3 local States of the USA and Canada to the use of phosphates for ecological reasons which were found to be valid in certain conditions. A substitute known as Nitrilotriacetate (NTA) was developed but was found later on to be equally harmful and rejected as a substitute for STPP. Hence these countries have continued using phosphate. In our opinion as the per capita consumption of detrement in India is very low, the effect of phosphate on pollution is likely to be insignificant for quite some time to come."

   (c) *National Chemical Laboratory Poona :* They have summed up their views as below :—

   "In India we are not aware of any serious pollution problem resulting from the use of sodium tripolyphosphate for which there is no suitable substitute. Sodium Tripolyphoshpate is being used all over the world in detegents and soaps."

5·56 The applicant company has also given a detailed note on this matter for our consideration and after taking that into account, the opinions referred to above and the fact that there is no satisfactory substitute for STPP, we are of the view that eutrophication problem in our country is not going to be of any substantial magnitude even if the applicant compnay's project of few other projects contemplated are set up.

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CHAPTER VI

CONCLUSIONS AND RECOMMENDATIONS

6·1 On a consideration of all the aspects pertaining to HLL's proposal, we are satisfied that the applicant company be permitted to produce the three items proposed by its subject to the following conditions :—

(a) The Company should issue fresh shares to the Indian public, to the exclusion of the foreign shareholders, to the extent which will, after the proposed issue of bonus shares in the proportion of one new share to every six shares pending before the Government, reduce the shareholding of the non-resident shareholder from the present figure of 85% at the most to 70% during the course of implementation of only the project for the manufacture of sulphuric acid, phosphoric acid and industrial phosphates (STPP) in accordance with the conditions stipulated in the company's letter dated the 28th August, 1973 to the Commission, copy whereof is hereto annexed and marked Annexure 'E'.

(b) The Company shall adhere to the phased programme indicated in its application before the Department of Company Affairs dated 27-10-1972 *i.e.* it will achieve the production of 18,000 tonnes in the first year of the commencement of the production, 27,000 tonnes in the second year and 30,000 tonnes in the 3rd year.

(c) Import of capital equipment will be allowed to the Company in accordance with the procedure in vogue at the relevant time and subject to the satisfaction of the Government. Such equipment would be imported strictly in keeping with the capacity proposed to be licensed.

(d) The project will be established at Haldia in the State of West Bengal as proposed.

(e) The Company will try to obtain technology and know-how for the proposed project from Indian sources and will go in for import of the same from foreign sources only if the requisite technology is not available in the country. For this purpose it should issue an advertisement inviting proposals from Indian parties and consider the same and the terms and conditions on which these are offered. It will be incumbent on the part of the Company to satisfy the concerned authorities, if it becomes necessary, to get technical know-how from abroad, that the indigenous technology is either not upto-date and satisfactory or is not available on suitable terms and conditions.

(f) The Company should earmark a certain percentage of its STPP production for sale to outside parties. We would suggest in this connection that from the production to be made at Haldia, the Company should meet its requirements of STPP for its Garden Reach Factory at Calcutta only and make available the balance of the production or such portion of it, for which it receives firm orders to the existing and new producers of synthetic detergents for the first five years after the production starts. By that time, it is expected that other intending manufacturers of STPP will be able to come into the field in the different regions. Hence, thereafter it will be possible to get the STPP on competitive terms.

(g) The supply to the other manufacturers of synthetic detergent should be made at the same rate at which the Company will supply it for its own captive consumption. For this purpose it will maintain separate cost accounts for the new project so that the cost of production of STPP may be separately determined. Considering the importance of synthetic detergents in the day-to-day use the Government can also consider taking action under Sections 209 (1) (d)/233-B of the Companies Act, 1956 in respect of basic raw materials like STPP.

(h) We are not suggesting any condition about the export of STPP as in our view the domestic demand will far exceed the available supply for a few years.

(Sd./)
(JUSTICE J.L. NAIN)
Chairman

(Sd./)
(D. SUBRAMANIAN)
Member

I am submitting a separate dissenting report.

(Sd./)
(H.K. PARANJAPE)
Member

NEW DELHI
Dated 20*th September*, 1973

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Monopolies & Restrictive Trade Practices Commission, New Delhi

M/s. HINDUSTAN LEVER LIMITED

ANNEXURES 'A' TO 'E'

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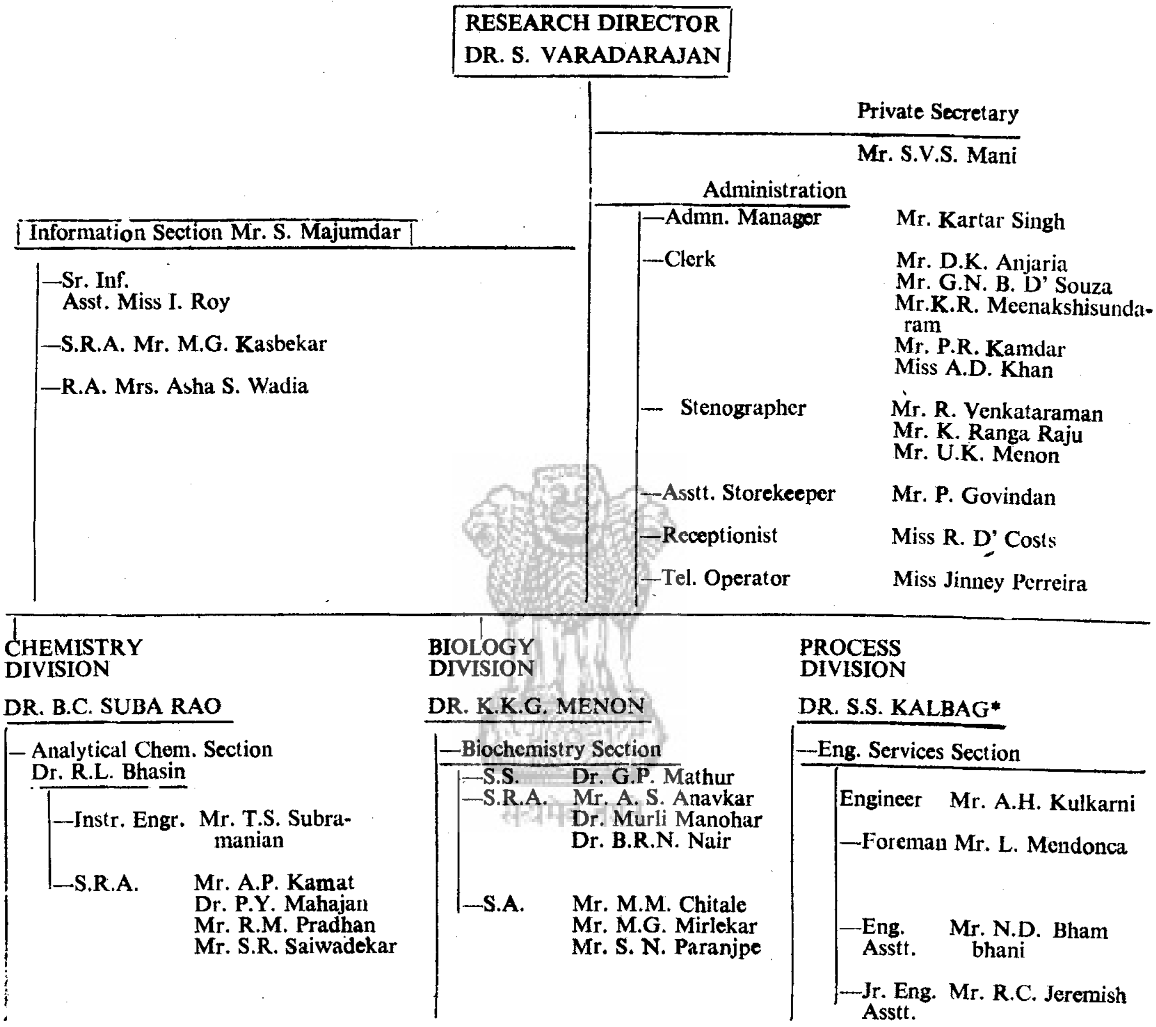
ANNEXURE 'A'

M/s. Hindustan Lever Limited

RESEARCH CENTRE, BOMBAY—ORGANISATION CHART: AUGUST 1973

(*Management & Monthly Paid Staff*)



RESEARCH DIRECTOR
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- Administration
  - Admn. Manager — Mr. Kartar Singh
  - Clerk — Mr. D.K. Anjaria; Mr. G.N. B. D' Souza; Mr.K.R. Meenakshisundaram; Mr. P.R. Kamdar; Miss A.D. Khan
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  - Receptionist — Miss R. D' Costs
  - Tel. Operator — Miss Jinney Perreira
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- PROCESS DIVISION — DR. S.S. KALBAG*
  - Eng. Services Section
    - Engineer — Mr. A.H. Kulkarni
    - Foreman — Mr. L. Mendonca
    - Eng. Asstt. — Mr. N.D. Bhambhani
    - Jr. Eng. Asstt. — Mr. R.C. Jeremish

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	Mr. D.T. Mehta
—R.A.	Mr. P.G. Naik Satam
	Mr. G. Ramachandran
	Mr. M. Ramanathan

—Organic Chem. Section
Dr. G.V. Nair

—R.S.	Dr. Vincent Paul
— S.R.A.	Dr. R.B. Mathur
	Mr. V.A. Pol
	Dr. S. Santhanagopalan
	Dr. M.K. Saxena

—Physical Chem. Section
Dr. G. Srinivasan

—R.S.	Dr. K.S. Narayan
—S.R.A.	Dr. G.P. Angadi
	Dr. S.G.T. Bhat
	Mr. V. Ramasubramanian
	Mr. J.P. Shah
	Dr. P. Sidheswaran
	Mr. N.M. Bramhe

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—Asstt. Perfumer	Mr. S. Krishnamurthy
	Mr. G.S. Ranade
	Mr. Y.G. Vaidya
—R.A.	Mr.P.K. Pawar

——Food Research Section

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—SRA	Mr. S.M. Sule

—Microbiology Section
Dr. Kalle

—ARS	Dr. (Mrs.) B.Z. Lashkari*
—SRA	Mr. N.G. Amudan
	Mr. S.Y. Deshpande
	Mr. A.L. Khurana
—RA	Miss S.C. Mehra

—Toxicology Section
Dr. M.J. Mulky

—SRA	Dr. K.M. Cherian
	Dr. (Mrs.) Krishna Biur
—R.A.	V.M. Gandhi
—Jr. RA.	Mrs. J. Vaishnav

—Process Eng. Section
Mr. J.D. Sehgal

—R.S.	Mr. V.B. Vaishnev
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	Mr. S. Krishnan
	Mr. V.M. Naik
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—Jr. RA.	Mr. R.S. Talwar

—Process Studies Section
Dr. R.K. Niyogi

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	Mr. R.R. Dalvi
	Mr. J.R. Kaushik
	Mr. A.P. Pandse
—Jr. R.A.	Mr. P.C. Kansara

—Product Assessment Section

—R.S.	Dr. M.K. Nagarajan
—A.R.S.	Mrs. S.V. Mhatre
—S.R.A.	Mr. V.R. Kulkarni
	Dr. Nagarajan
	V. Iyer
—R.A.	Mr. K.A. Fernandes
	Miss Shima Bhadra

*Part-time

Part-time Medical Officer: Dr . Cocil B. Gomes

S.S :Senior Scientist; R.S.: Research Scientist; A.R.S.; Asstt. Research Scientist; S.R.A.: Senior Research Assistant; R A. : Research Assistant.

ANNEXURE 'B'

Hindustan Lever Limited

List of Applications for Patents Filed on the Basis of R & D Results

Sr. No.	Ind. Pat. Appln. No.	Date	Title	Subject
1.	92901	23-3-64	Method of Preparation of Perfumery substances.	Preparation of Linalool from Indian Lemongrass Oil.
2.	97906	18-12-64	Foodstuffs	Novel Microbiological process for production of cheese flavour.
3.	97795	28-12-64	Foodstuffs	Novel quick process for preparation of cheese from milk within six days.
4.	97196	28-12-64	Selective splitting of Kusum oil	Process for upgrading of Indian Kusum oil for soap making through selective elimination of cynaide.
5.	97293	4-1-65	Preparation of Perfumery products.	Preparation of high value linalool oxide from lemongrass oil.
6.	100288	28-6-65	Preparation of monoterpenoid products.	Preparation of linalool oxide from palmarosa oil.
7.	100287	28-6-65	Edible products.	Leavening compositions for traditional Indian foods.
8.	101683	23-9-65	Condensed milk.	Process for preparation of condensed milk from buffalo milk.
9.	97504	17-1-65	Detergent composition	Use of Indian rosin derivative as lather booster in non-soap detergents.
10.	104875	18-4-66	Toilet Bar.	Toilet soap with noval effects.
11.	106282	21-7-66	Fatty Acid manufacture.	Chemical processing of castor oil for its conversion into a soap making oil
12.	116567	1-7-68	Preparation of perfumery compounds.	New process for preparation of phenyl ethyl alcohol from styrene.
13.	117161	8-8-68	Processed cheese.	Quick process for preparation of cheese.
14.	123208	18-9-69	Preparation of perfumery compound.	Preparation of dihydro-iso-jasmone.
15.	126326	23-4-70	Food composition.	Nutritional beverage formulation.
16.	126789	25-5-70	Flavouring	Improvement of flavour of mustard oil by enzymic process.
17.	126788	25-5-70	Foodstuff.	Process for treatment of casein suitable for quick rehydration.
18.	126895	8-6-70	Dried casein materials	Process of preparation of casein for rehydration to give unusual texture.
19.	126973	8-6-70	Milk products.	Amino acid fortification to improve nutritional quality of malted milk beverage.
20.	128073	19-8-70	Preparation of paracymene.	Preparation of high value paracymone from unutilised fractions of Indian turpentine.
21.	128506	21-9-70	Preparation of glyceryl esters	Process for preparation of high value special glycoride for application in filters.
22.	129347	23-11-70	Improvements relating to glycerol esters.	Preparation of emulsifiers.
23.	129348	23-11-70	Improvements relating to vegetable fat products.	Processing of Indian sal fat for use in confectionery formulations.
24.	130178	4-2-71	Improvements relatihg to treatment of vegetable oil.	Process for upgrading Indian Karanja oil for use in soaps.
25.	131299	11-5-71	Preparation of hydrogenation catalyst.	Preparation of high activity Raney Nickel catalyst.

Sr. No.	Ind. Pat. Appln. No.	Date	Title	Subject
26.	131452	21-5-71	Preparation of perfumery alcohol	Preparation of linalool from Indian turpentine.
27.	133176	8-10-71	Total sunscreen compositions.	Preparation of products for protection from damage by ultra violet radiations in sunlight.
28.	133669	18-11-71	Niacin—containing skin-lightening.	Complexion protection product.
29.	134092	27-12-71	Oil extraction.	Process for recovery of high quality vegetable oils from bleaching earth residues.
30.	147/72	8-5-72	Bleaching of Khakan fat.	Process for upgrading of Indian khakan fat.
31.	196/72	15-5-72	Preparation of trisodium chlorophosphate.	Chemical process for preparation of a stable solid chlorine bleach.
32.	880/72	17-7-72	Sal fat purification	Process for removal of undesirable colour from Indian Sal fat.
33.	881/72	17-7-72	Skin moisturiser.	Skin nutrient composition.
34.	882/72	17-7-72	Superfatted soap bars.	Novel process for improvement of toilet soap characteristics.
35.	988/72	27-7-72	Soap sulphonate tablets.	Process for use of new surface active materials for improvement of toilet bar.
36.	1117/72	9-8-72	Scouring powder.	Stabilised chlorine containing composition for household cleaning and disinfection.
37.	1118/72	9-8-72	Soap compositions.	Application of processed castor oil in toilet bar compositions.
38.	1368/72	8-9-72	Animal feed.	Upgrading and detoxification of Indian sal meal for animal nutrition products.
39.	126/Bom/72	8-12-72	Stabilised mustard seed flavour.	Stabilised flavour precursor compositions from Indian oilcake.
40.	139/Bom/72	12-12-72	Improved enzymes.	Process for improvement of bacteriological quality of proteolytic enzymes.
41.	49/Bom/73	6-2-73	Treatment of glycerides.	Improved process for upgrading castor oil for soaps.
42.	66/Bom/73	22-2-73	Skin compositions.	Skin nutrient compositions containing natural biological active materials.
43.	112/Bom/73	30-3-73	Treatment of oil.	New process for upgrading rice bran oil for soaps.
44.	113/Bom/73	30-4-73	Treatment of rice bran oil.	Process for removal of colours and waxes from rice bran oil used in soap making.

ANNEXURE 'C'

Hindustan Lever Ltd.

Oils Consumed in the Manufacture of Soap

	1966		1967		1968		1969		1970		1971		1972	
	Tonne	%	Tonnes	%	Tonnes	%	Tonnes	%	Tonnes	%	Tonnes	%	Tonnes	%
Total oil consumed	67908	100	72826	100	85528	100	88873	100	81697	100	82612	100	86179	100
Non-edible oils consumed:														
Hardenod Castor oil	1973	3	976	1	649	1	7535	8	11505	14	7671	9	9073	10
Sal Oil	..	..	..	..	..	..	..	..	386	..	1728	2	1934	2
Kusum	598	1	177	..	205	..	659	1	1270	2	2247	3	1771	2
Neem/Deodorised Neem	..	..	196	..	685	1	782	1	1570	2	1551	2	2928	3
Hardenod Karanja/ Karanja	..	..	..	..	44	..	422	1	907	1	818	1	431	1
Hardenod Rice Bran Oil	..	..	..	..	..	..	100	..	4209	5	9268	11	9398	11
Rice Bran Oil	..	..	527	1	2462	3	3002	3	3815	5	1091	1	743	1
Total	2571	4	1876	2	4045	5	12500	14	23662	29	24374	29	26278	30

ANNEXURE 'D'

List of the persons who addressed letters to the Commission regarding the proposal of M/s. Hindustan Lever Limited, Bombay.

1. M/s. Travancore Titanium Products Ltd.,
Kochuveli, Post Box 1,
Trivendrum-21,
Kerala.

2. The General Manager,
M/s. Delhi Cloth & General Mills Co. Ltd.,
Chemical Works,
Najafgarh Road,
New Delhi-10015.

3. M/s. Ballarpur Paper & Straw Board Ltd.,
Thapar House,
124, Janpath,
New Delhi.

4. M/s. Albright Morarji & Pandit Ltd.,
Rajmahal, 3rd Floor,
Veer Nariman Road,
Bombay-20.

5. M/s. Amin Chand Pyare Lal,
7, Narindar Palace,
15, Parliament Street,
New Delhi-110001.

6. M/s. Star Chemicals Pvt. Ltd.,
21, Noble Chambers,
Parsi Bazar Street,
Fort, Bombay-1.

7. M/s. Swastik Oil Mills,
Nadkarani Marg,
Antop Hill, P. O.,
Bombay-400037.

8. M/s. Tata Oil Mills Company Ltd.,
Bombay House,
Homi Modi Street,
Fort, Bombay-400001.

9. M/s. Kusum Products,
Bombay Mutual Building,
9, Brabourne Road,
Calcutta.

10. Dr. A.K. Mukherjee,
Shri N.G. Mandal,
1/4, Central Avenue,
A-Zone, Durgapur-4,
West Bengal-1.

11. M/s. Organo Metallics,
13, Master Road, Victoria Gardens,
Bombay-27.

12. M/s. Vikas Chemical Company,
C/o. Ahmed Woollen Mills Compound,
Ambernath (C. Rly),
Maharashtra.

13. M/s. Lombards Private Limited,
Rahimtoola House,
Homji Street,
Fort, Bombay-1.

14. M/s. Bengal Chemical & Pharmaceutical Works Ltd.,
164, Maniktala Main Road,
Calcutta-54.

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15. Shri A.G. Bakro,
29, Patrakar Nagar,
Bandra (East),
Bombay-400 051.

16. M/s. Vadson Laboratories,
I/B, Industrial Estate,
Raipur,
Madhya Pradesh.

17. M/s. Texchon Industries,
1st Floor, Flat No. II,
Pushpa Kunj Pandit Nehru Road,
Santacruz (East),
Bombay-55 *AS*.

18. Shri N.G. Mehta,
64, Mahavir Building,
Matunga (C. Rly.),
Bombay-19 (India).

19. M/s. Standard Mineral Products Pvt. Ltd.,
Subash Road,
Jogeshwari East.,
Bombay-400 060.

20. M/s. S.P. Hoona Industries,
Industrial Estate,
G.I.D.C. Plot No. 136-E,
Vapi (*W. Rly.*).

21. M/s. Rajasthan Chemicals Corporation,
Charighar Bazar,
Jodhpur (*Rajasthan*).

22. M/s. Vijay Soap Factory,
Near Kothari Gate,
Behind Jain Dispensary,
Rajkot.

23. M/s. Ksa Ink & Chemical Factory,
Union Co-op. Society's Building,
(Mherwan Building),
Sir Phirozshaw Mehta Road,
Fort, *Bombay*-1.

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24. M/s. Sipisons,
Behind Perimal Gymkhana,
Near Tulsi Baug,
Ellinbridge,
Ahmedabad-6.

25. M/s. Mazda Industrial Chemicals Pvt. Ltd.,
Mazda Industries, House,
Off Haines Road,
Worli Naka,
Bombay-18.

26. M/s. Standard Detergent & Chemical Industries,
Killic House,
Home Street,
Fort, *Bombay*-1.

27. Indian Soap and Toiletories Makers' Association,
P. II Mission Row Extension,
Calcutta-1.

28. M/s. Ultramarine & Pigments Ltd.,
Baldota Bhavan,
117, M. Karve Road,
Bombay-400 020.

29. M/s. Gala and Company,
252/256, Barahman Road,
Bombay.

30. M/s. Harmosynth Chemical Corporation,
Ranade Banglow Kurla,
Bombay.

31. M/s. India Laboratory Products Co.,
Bolow Mahalaxmi Bridge,
Bombay-34.

32. M/s. Vivek Oil & Soap Industries,
114, Abdul Rahman Street,
Bombay-3.

33. Shri P.S. Seetharaman—'Sundarai',
23/26, Luz. Church Road,
Madras-4.

34. M/s. WHITCO Pvt. Ltd.,
Surya Mahal,
Military S.O. Lane,
Fort, *Bombay*.

35. M/s. Chemex Works,
67, Ali Chambers,
Nagindas,
Master Road,
Bombay-1.

36. The Secretary,
Federation of Associations of Small Industries of India,
Laghodyog Kutee, 23-B/2, New Rohtak Road,
New Delhi-5.

37. The President,
Indian Small Scale Mfr's Association,
C/o Vijay Industries, Sabun Bhavan,
187, Sheriff Devji Street,
Bombay-400 003.

38. Union Home Products,
Karnataka Bank Building,
Kodiyabail, *Mangalore*-575 003.

39. Indian Organic & Pharmaceutical Works,
6, Factory Area, *Kanpur*-6/8.

40. Haryana State Industrial Development Corporation,
S.C.O. 45, Sector 17A, P.B. No. 22,
Chandigarh-7.

41. Punjab State Industrial Development Corporation,
S.C.O. 54, 55 & 56, Sector-17-A,
Post Box No. 81,
Chandigarh.

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ANNEXURE 'E'

Hindustan Lever Limited

Hindustan Lever House, Backbay Reclamation,
Bombay-1. *BR*

August 28, 1973.

PRIVATE

Mr. T.N. Pandey,
Deputy Secretary,
Monopolies & Restrictive
Trade Practices Commission,
Travancore House,
New Delhi - 1.

Dear Mr. Pandey,

Please refer to my discussions with the Chairman and Members of the Commission in the Chairman's office on 27th August, 1973.

It was pointed out during the discussions that there were certain difficulties in diluting foreign shareholding beyond the level contemplated in the guide-lines, namely (a) additional cost which will make the products less competitive, (b) disadvantage to the shareholders, and (c) the adverse effect that any departure from the guide-lines may have on the Government's international credibility.

However, due to special features of the project and out of deference to the Commission's wishes, I conveyed my personal agreement to the dilution of foreign shareholding in the Company to 70% as a result of this project alone, in the event the Commission recommends the project and the Central Grovernment allows the project to go through. It is understood that this will not operate as a precedent for any of our future projects and that each project will be considered on its own merits.

It was pointed out that there had been no opportunity for me to consult the full Board or the shareholders whose approval is required under the law for any fresh issue of Capital. I, however, assured the Commission that I would do my utmost to persuade the Board and the majority shareholders to accept my recommendation, and, in that event, the Company shall not resist the level of dilution of foreign shareholding mentioned above at the hearing of the matter before the Central Government.

Yours sincerely,

(Sd/-)

T. THOMAS
Chairman

सत्यमेव जयते

MONOPOLIES AND RESTRICTIVE TRADE PRACTICES COMMISSION

Dissenting Report under Section 22 (3) (b) of the Monopolies and Restrictive Trade Practices Act, 1969—Messrs Hindustan Lever Limited, Bombay.

BY

DR. H. K. PARANJAPE

सत्यमेव जयते

Dissenting Report by Dr. H.K. Paranjape Under Section 22(3) (b) of the Monopolies and Restrictive Trade Practices Act, 1969—M/s. Hindustan Lever Limited, Bombay.

INTRODUCTION

I am writing this Dissenting Report because I find that I disagreed with my colleagues regarding both the overall perspective relating to the present proposal, and the actual recommendations.

I have tried to avoid repetition of factual data. The details regarding the proposal, and the comments and information received from various Governmental and non-Governmental agencies, are to be found in the Majority Report. I have made use of these without reproducing them except where reproduction was unavoidable. In addition, I have given details of certain facts, especially relating to the development of the non-soapy detergents industry and the phosphates (STPP) industry as these details, in my view, provide the necessary background for examining the present proposal in a proper perspective.

सत्यमेव जयते

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CHAPTER I

THE GROWTH OF THE NSD INDUSTRY

The Present Position of Hindustan Lever

1·01 Hindustan Lever is one of the largest manufacturing companies in India and has been ranked 19th by the Economic Times in its survey of the hundred giants in the Indian corporate sector*. It is a subsidiary of Unilever, a multi-national giant, which ranks tenth in multinational corporations from the point of view of sales value**. Unilever is engaged in the manufacture and sale of a wide variety of goods for household use. The principal products are foods (including margarine, other fats and oils, ice-cream, quickfrozen and other packaged 'convenience' foods, meat and fish); detergents and toilet preparations; paper; plastics; packaging; chemicals and animal feeds†.

1·02 The association of Unilever with India is an old one. William Lever, the founder, started export of soaps to India in the 1890s. In the 1920s, a Calcutta factory producing soap was acquired. Soap production began in Bombay in 1934. Local manufacture of vegetable ghee began in India in 1932. The production of non-soapy detergents (NSD) was taken up in 1960. To these lines various food production enterprises were added in the 1960s‡. At present the Company manufactures the following products :

> "Soaps, detergents, various toilet preparations including toothpaste; food products including vanaspathi, ghee and baby food; chemicals such as, Nickel catalysts and fine chemicals; and animal feeds.

The Monopolies Inquiry Commission (1965) had placed Hindustan Lever among the top enterprises in the production of synthetic detergents (67·6%), Glycerine (refined, 66·4%),soap—other sorts (62·0%), toilet soap (58·7%), shaving soap (42·4%), talcum powder (37·9%) and vanaspati (19·1%).

1·03 Upto 1956, Unilever was operating in India as a private limited company with an authorised, issued and paid-up capital of Rs. 5·57 crores. This entire share capital was held by Unilever Ltd. (U.K.). On 27 October 1956, the company was converted into a public limited company under the name of Hindustan Lever, and Unilever sold 5,57,000 shares out of its holdings to the Indian public at a premium of Rs. 6·50 per share of Rs. 10/-. The share capital of the Company has since then increased by the issue of rights shares, and largely by capitalisation of reserves. At present the authorised, issued and subscribed capital comprises 1,44,45,390 shares of Rs. 10/- each fully paid up. Of these 85 per cent are held by Unilever Limited and the remaining 15 per cent are held by Indian shareholders.

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1·04 Hindustan Lever, as pointed out above, had entered the soap industry in India at quite an early stage. While soap powder and non-soapy detergents (NSD) were introduced on a very small scale by some world producers before the second World War, the real move from soaps to non-soapy detergents took place in the period after the War. It was the American producer—Proctor and Gamble who first made the break-through in NSD. Lever Brothers (USA) followed, with the first plant being brought into production in 1950. The NSD products were launched in Europe in 1950. NSD production was attempted to be developed in India in the 1950s and the 1960s.

The First Phase

1·05 The first producer to enter the production of NSD in India was Swastik Oil Mills, a division of Karamchand Premchand (Private) Limited, a Sarabhai concern. Swastik submitted a proposal under the IDRA for the manufacture of NSD in December, 1952; the proposal was approved in February 1953 and the plant for household as well as heavy duty industrial detergents went into operation in 1957. It had an annual capacity of 3,000 tonnes, though actual production was lower in the early years.

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*"Industrial Giants", The Economic Times, February 24, 1973.

**"Multinational Corporations in World Development", United Nations, New York, 1973.

†"Jane's Major Companies of Europe 1973". Edited by Lionel F. Gray and Jonathan Love, p.C 170.

‡Charles Wilson ; Unilever, 1945 to 1965, Challenge and Response in the Post-War Industrial Revolution, London 1968. Pages 237 to 246.

1·06 The next to enter the field was Hindustan Lever. Its scheme was approved and an import license for the NSD plant was granted in 1956. These two proposals were approved at a time when NSD was not included in the schedule of industries to be licensed under the IDRA. When this was done, Hindustan Lever applied for an industrial license in January, 1958, and this was granted in March, 1959. Hindustan Lever was also permitted to import a certain quantity of NSD - probably for the purpose of testing the market in 1957 and 1958. Its plant in Bombay, with a licensed capacity of 300 tonnes p.m., went into production in December, 1959.

1·07 It appears that Tata Oil Mills Company (TOMCO) had also evinced interest at about the same time in the production of NSD and entered into correspondence and discussions with the concerned Government authorities from 1956. This Company made an application in February 1957. for an industrial licence to produce NSD. The Covernment rejected the application of TOMCO in July, 1957, on the ground that sufficient capacity had already been licensed and foreign exchange may be required both for the plant and the recurring raw materials. The Government also indicated to TOMCO that, instead of undertaking the manufacture of synthetic detergents based on the use of Deodecyl Benzene (DDB), it would be adivisable for TOMCO to explore the manufacture of such products based on higher fatty alcohol and fatty acid derivatives. It may be noted that fatty alcohols are manufactured from fatty oils and one of the main points in favour of NSD is that it can save the use of fats and oils. As a matter of fact, house-hold detergents were being produced all over the world with the use of DDB as it had been already found that fatty-alcohol-based detergents would be very expensive.

Discrimination in Licensing

1·08 This incident of a fully Indian owned company having been denied an industrial licence to set up a unit for the production of NSD on certain grounds, within a short time after Hindustan Lever was granted a licence is found to be not the only instance of this kind in the history of the synthetic detergents industry in India. As will be noted from the above information, TOMCO was refused a licence on the ground that adequate capacity had been sanctioned and that foreign exchange would be involved in importing plant and also for raw materials. Apparently these grounds were overlooked or were considered not to be important a few months earlier when the proposal of Hindustan Lever was approved. Further details about the various applications made by the principal producers of NSD in India and what happened to the applications is given in Annexure I to this Dissenting Report. It will be observed from that statement that Hindustan Lever was granted an industrial licence for setting up a new unit at Calcutta for the production of NSD with a capacity of 8,000 tonnes per annum. This was done on the basis of an application from Hindustan Lever made in March, 1963, and at a time when there was a 'ban' on the creation of further capacity for the production of NSD. The case was considered in spite of the 'ban' on the ground that the import of capital equipment would be financed by Hindustan Lever through the issue of fresh capital to their U.K. principals. Later on, it was decided that instead of issue of fresh capital, the U.K. principals would provide a loan. In any case, the plea appears to have been that the foreign exchange requirement would be met by this Company itself and therefore this would not cause any strain on the foreign exchange available to the Government. It was also pointed out that while DDB and other raw materials would continue to have to be imported for some time, it had been recently decided that raw materials required for NSD could be included in the list of permissible items for import against export promotion incentive licences for vegetable oils etc. On this revised basis, Hindustan Lever would have no difficulty in finding the foreign exchange for importing the required raw materials. The Licensing Committee aproved the application on December 20, 1963. It also recommended that the item 'NSD' should be removed from the list of items banned for further capacity. This ban was apparently lifted from June, 1964. It should also be noted that while all the plants sanctioned before this time had only a capacity of 3,600 tonnes per annum, the capacity sanctioned for the Calcutta plant of Hindustan Lever was 8,000 tonnes per annum from its very inception.

1·09 Shortly after this, an application was made by TOMCO for a synthetic detergents plant to be set up at Ghaziabad with a capacity of 8,000 tonnes per annum. This applicant had proposed to make arrangements for foreign exchange to pay for the imported capital goods through a loan from a foreign bank and had suggested that the foreign exchange cost of raw materials could be met from its earnings from the export of vegetable oils etc. However, in this case Government appears to have taken the view that, this not being an essential industry, and the proposal involving recurring import of raw materials for some years, the licence should not be granted. It was also pointed out that even if the Company might be effecting certain exports out of which it earned foreign exchange, such foreign exchange could be put to better use for importing more essential materials for more essential industries instead of being used for imports of raw materials for a non-essential industry. On this basis, the application of TOMCO, and also the applications of Swastik and Godrej for new units to produce 3,600 tonnes per annum each of NSD and that of Government Soap Factory, Bangalore, for a capacity of 1,200 tonnes of NSD were rejected in November, 1964. Thus even though the ban on further capacity being created for NSD had been removed by this time, Indian companies were not permitted to set up units for reasons which had obviously not been considered important when permitting Hindustan Lever to set up a new unit some months earlier.

1·10 The permission given to Hindustan Lever to set up one unit in Bombay and a second unit in Calcutta (the latter of a larger capacity) appears to have given it a head-start over other NSD producers. At a later stage, it was suggested that existing producers, and especially those who had substantially reached their licensed capacity, should be preferred over others so that the additional capacity required could be speedily achieved. It was also stated that expansion of existing units requires less foreign exchange than setting up of new units. On this basis, in 1967, Hindustan Lever was permitted to expand the capacity of its Bombay unit from 3,600 tonnes to 7,100 tonnes per annum. Swastik was at the same time permitted to expand from a capacity of 3,600 to 11,880 tonnes per annum. In 1968, further expansions were permitted as follows :—

Hindustan Lever, Bombay : 7,100 to 10,000 tonnes.
Hindustan Lever, Calcutta : 8,000 to 13,000 tonnes.
Swastik, Bombay : 11,880 to 20,000 tonnes.
TOMCO, Bombay : 3,600 tonnes per annum to 10,000 tonnes.

At the same time, two new units were permitted — Government Soap Factory, Bangalore (10,000 tonnes) and Godrej (10,000 tonnes).

1·11 It may be of interest to note that the Licensing Committee desired at the time of sanctioning this expansion of Hindustan Lever in 1968 that the foreign shareholdings in Hindustan Lever should be reduced suitably. It was, however, also suggested that no such specific condition need be laid down when approving the expansion. In this connection, it is also interesting to note that TOMCO had claimed that it would be able to increase its capacity at Bombay to 17,000 tonnes without involving any foreign exchange expenditure; it was however sanctioned a capacity of 10,000 tonnes. The applications of Hindustan Lever, TOMCO and Swastik to set up NSD units at Ghaziabad were all rejected mainly on the ground that henceforward new entrepreneurs were to be favoured and not entrepreneurs who had already established plants for producing NSD.

1·12 Without going into any further details, it may be said that a curious result of the various approaches adopted by the licensing authroities at different times in the history of the NSD industry appears to have been that Hindustan Lever obtained a capacity much larger than its Indian competitors. Considerations which were used to support the grant of a licence to Hindustan Lever somehow did not operate in favour of other applicants even after a few months; and considerations which stood in the way of Indian competitors became less important after a few months when Hindustan Levers' case was considered. The availability of foreign exchange to Hindustan Lever from its own source appears to have been used as a reason to favour its applications as against those of fully Indian companies who had no such permanent source of foreign exchange from abroad. On this basis, obviously a foreign majority company can always be favoured over an Indian company. This is of course a shortsighted view. In the long run, the growth of foreign equity, and the growth of a foreign subsidiary, results in a much larger drain on the country's foreign exchange resources. Hindustan Lever's record of remittances abroad amply illustrates this. The Licensing authorities appear to have overlooked this.

Predominance of HL in NSD

1·13 The present position of Hindustan Lever in the NSD industry will be indicated from the following table:—

TABLE 1

(Tonnes)

	Licensed Capacity	Additional Capacity approved by task force	Total approved capacity	Production 1972
Hindustan Lever	23,000	23,000	46,000 (43)	36,704 (59)
Tata Oil Mills	10,000	10,000	20,000 (19)	10,238 (16)
Swastik Oil Mills	20,000	19,000	39,000 (36)	13,953 (23)
Kusum Products	2,700	..	2,700 (2)	1,133 (2)
Total	55,700	52,000	107,700 (100)	62.028 (100)

NOTE.—Figures in brackets are percentages to total.
Source ; DGTD.

1·14 This would show that Hindustan Lever is predominant in the production of NSD in India. It may also be noted that, as a part of its package proposals for the dilution of foreign equity from 85 per cent to about 68 per cent, it has proposed the setting up of two new NSD units with a capacity of 14,000 tonnes each in the first instance. If these are permitted, Hindustan Lever would have a total capacity of 74,000 tonnes per year. As compared to this, the next largest Indian producer-Swastik would have a capacity—of 39,000 tonnes and the third largest TOMCO—would have a capacity of 20,000 tonnes. If Swastik and TOMCO are permitted to set up any new units their relative position would of course be different. According to the Press Note issued by the Government inviting applications for setting up NSD capacity, new units of 10,000 tonnes each are expected to be favoured in the grant of licences in the NSD industry.

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CHAPTER II

GROWTH OF THE PHOSPHATE INDUSTRY

Sodium Tripolyphosphate

2·01 Without going into details, it may be stated that Sodium Tripolyphosphate (STPP) is one of the industrial phosphates. It is produced through manufacturing phosphoric acid by digestion of rock phosphate either with sulphuric acid or hydrochloric acid followed by neutralisation to the suitable degree of the produced phosphoric acid by soda ash and then processing the neutralised mass in driers and calciners. Rock phosphate is thus an essential raw material. So also is Soda Ash. According to the process chosen, either sulphuric or hydrochloric acid is the third essential material. The process using sulphuric acid has been commonly used in most parts of the world, while the process based on hydrochloric acid does not appear to have been commercially successfully exploited to any significant extent. The advantages and disadvantages of the hydrochloric route are stated to be as follows :*

Advantages

(a) It produces phosphoric acid purer than that produced by sulphuric acid route. This purer phosphoric acid can be used straight for STPP manufacture without processing through purification unit.

(b) The caustic soda by-product from captive chlorine production unit (by caustic-chlorine cell process) can be sold in the market, which would add to profitability of the plant.

(c) This would help import substitution in sulphur.

(d) This would give a good outlet for chlorine obtained in electrolytic caustic plants, in case there is any such plant near the location of STPP plant.

(e) This involves less HF effluents than those in sulphuric acid process route.

Disadvantages

(a) There is not much likelihood of large scale centralised production of hydrochloric acid.

(b) The disposal of by-product calcium chloride obtained in the hydrochloric acid route will pose a serious problem.

(c) The hydrochloric acid route requires some organic solvents which are not manufactured in India.

(d) Hydrochloric acid is very corrosive.

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Star Chemicals

2·02 From such records as the Commission has been able to secure and other data collected by it, it appears that Star Chemicals of Bombay was the first unit to obtain an industrial licence for the production of phosphoric acid (including its derivatives such as STPP). Star Chemicals, which established a unit in 1944 on a small scale for the production of Phosphoric acid, was granted an industrial licence in 1960 for the manufacture of Phosphoric acid and various phosphatic materials including Sodium Tripolyphosphate (STPP). The Company found that its initial plant was obsolete and inadequate for the new requirements and it therefore decided to go in for a new Phosphoric acid plant. The erection of this plant, partly imported and partly fabricated in India, took a long time as certain components had to be imported, and many difficulties were faced in obtaining the necessary permission. As the demand for Phosphorus, Phosphoric acid and Phosphates expanded in the meanwhile, the capacity already licensed to this company was further expanded in July, 1964, for the manufacture of 5,000 tonnes Phosphoric acid by wet process in addition to 4,000 tonnes by dry process which had already been licensed to it. The idea was to produce about 1,000 tonnes per annum of Sodium Hexameta Phosphate and 15,000 tonnes per annum of Sodium Tripolyphosphate (STPP). In the course of implementing this licence, which faced other difficulties such as allotment of suitable land and supply of power, the Company found that the position regarding the supply of Sulphuric acid had significantly changed. Sulphuric acid which was freely available in Bombay—where the Company's plant was located—at a reasonable price became scarce, and the price rose to over Rs. 300 per tonne. Due to the development of chemical industries around Bombay, there were also acute periodical shortages in the supply of Sulphuric acid. The Company therefore applied in January, 1967, for a new licence for the manufacture of Sulphuric acid. This application was rejected in April, 1967, on the ground that Sulphuric acid was an item in the 'banned' list at that time for licensing further capacity. It appears to have been overlooked when rejecting the application that the 'ban' was not applicable to the creation of capacity for captive consumption. Even though the Company represented against this decision, Government stuck to it.* The result was that even though the Company had finally succeeded in obtaining land and also imported a plant with a capacity of 25 tonnes a day of Phosphoric acid, the licence could not be implemented because it was not possible to produce STPP and other Phosphates without an assured supply of Sulphuric acid. It appears that the position continues unchanged. The imported plant remains idle and the Company, a 100% Indian owned company not belonging to any Large House, which might have pioneered the production of Industrial Phosphates including STPP in India, has remained deprived of this opportunity.

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*Information provided by the Fertilizer Corporation of India in their letter No. DPJ. 4.1.407 dt. July 13/16th, 1973 to the M.R.T.P. Commission; supplemented by information provided by Hindustan Lever.

Swastik Oil Mills

2·03 This undertaking had alredy taken up the manufacture of non-soapy detergents—being the first in that field. It applied in August, 1960, for the manufacture of 4,000 tonnes per annum of STPP. It was understood from the discussions the Commission had with the management of this undertaking that they were attempting to obtain technical know-how from Albright Wilson, the major manufacturer in U.K. of STPP. The only information available about their application is that in February 1961, the Government informed them that a licence under the IDRA for the manufacture of STPP was not necessary. No further indication is available about the matter. It was indicated by the management of Swastik that they did not pursue the proposal as there was talk about the undesirability of a producer of NSD entering the production of STPP. Albright Wilson in the U.K. had entered the production of NSD. Later, Albright Wilson decided to collaborate with another party for the production of STPP in India.**

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Excel Industries

2·04 Excel Industries, Bombay, applied in December, 1963, for expansion of their capacity to manufacture Phosphoric acid from 500 tonnes to 7,500 tonnes. They proposed to do this by using Hydrochloric acid instead of Sulphuric acid with the technical collaboration of an Israeli firm. The Licensing Committee partly approved the proposal and an expansion licence for a capacity of 1,500 tonnes per annum was recommended. It was decided that for the manufacture of Phosphoric acid by Excel Industries only indigenously produced phosphorus would have to be relied upon, and no imports would be permitted. The only unit then licensed to manufacture Phosphorus was M/s. Star Chemicals which could not establish its Phosphorus unit for a long time because of various difficulties—the production of Phosphorus commenced only in 1970—and therefore M/s. Excel Industries also failed to manufacture Phosphoric acid and various Phosphates which they were expected to do. The difficulties in the development of Star Chemicals along the proposed lines thus also created a stumbling block in the way of another fully Indian-owned entrepreneur developing the manufacture of STPP and other Phosphates which it was proposing to do on the basis of a different process*.

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*From a study of the concerned file, it appears that the rejection was based on a misunderstanding by someone in the Secretariate that the quantity of captive consumption required by the party amounted only to 5,000 tonnes while the capacity applied for was 16,500 tonnes. This was not correct. The licensed capacity for Phosphoric acid of 5,000 tonnes by wet process held by Star Chemicals would have required something like 14,000 tonnes of Sulphuric acid. This mistake was apparently not noticed by anyone and the decision to reject the application was confirmed. It may be noted that this application for a licence as well as the representations against rejections were disposed of without reference to the Licensing Committee.

**The Commission could not secure the file of the Ministry of Industrial Development relating to this application of Swastik Oil. The file is reported not to be traceable. The above information has been obtained from the files of DGTD made available by the Ministry of Industrial Development. It may be noted that earlier, when considering the case of Mrs. Star Chemicals, an industrial licence under the IDRA had been issued for items like Phosphoric Acid and its derivates (including STPP) even though this was not a 'miscellaneous chemical' enumerated under item 19 (xiv) of the First Schedule to the IDRA. Other licences were also issued subsequently for Industrial Phosphates. Only in the case of Swastik, the Government's answer appears to have been that no licence was necessary.

Albright, Morarji & Pandit

2·05 It appears that Phosphate India Ltd. was holding an industrial licence for the production of 1,100 tonnes of Phosphoric acid. M/s. Dharamsi Morarji, one of the collaborators in the project for producing Phosphoric acid and related products, were also holding a licence for a capacity of 1,500 tonnes per annum of the same product. Mrs. Sharada Mukherji, on behalf of Phosphate India Ltd. applied in April, 1964, for the expansion of capacity of Phosphoric acid and related products by 23,000 tonnes. It was indicated that the production of Phosphoric acid and Phosphates would be undertaken by a new company to be established for the purpose and that in the new company, Dharamsi Morarji and Albright Wilson (U.K.) were to hold a major portion of the equity with the latter also providing technical know-how. The requirements of Sulphuric acid for the manufacture of Phosphoric acid were to be met by supply from Dharamsi Morarji. This application was considered at the same time as the applications of Star Chemicals and Excel Industries for substantial expansion. The capacity asked for by the three concerns and those recommended by the Licensing Committee may be seen from the Table below :-

TABLE 2

(Tonnes)

Name of the Company	Applied for		Recommended	
	Wet Process	Dry Process	Wet Process	Dry Process
1. M/s. Star Chemicals . . .	7000	4500	2000	4000
2. M/s. Excel Industries . . .	..	7000	...	1500
3. Mrs. Sharada Mukherji (Later AMP) . . .	23000	-	20000	-

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2·06 Even though the industrial licence was issued in the name of Mrs. Mukherji, she and her associates intended to contribute only a small proportion of the share capital (3%) of the new company that was to be formed—the major part of the capital being contributed by M/s. Albright Wilson (46%) and Dharamsi Morarji (27%).

2·07 Albright Morarji and Pandit (AMP) was incorporated in 1965 for the purpose of implementing the industrial licence regarding the production of 20,000 tonnes of Phosphoric acid and related quantities of Industrial Phosphates. M/s. Albright Wilson (U.K.), whose business is to manufacture fine chemicals, Industrial Phosphates (including STPP), agricultural products (including fertilisers), Phosphoric acid etc., were the foreign collaborators. The collaborators were paid, for the installation of the original plant, fees amounting to Rs. 18·70 lakhs. For agreeing "to impart, at all times while it holds any shares in the company, all technical information in their possession which might assist the company in activities for the time being carried on by it and for using the same", the company was allotted equity shares of Rs. 10.50 lakhs as fully paid up. The implication is that no further payment for technical know-how would be necessary as long as the foreign company continues to hold some shares in this company.

2·08 One of the important aspects relating to the licence of this Company was that it was expected to provide 12,000 out of 20,000 tonnes of Phosphoric acid (capacity for which was licensed to it) to M/s. Dharamsi Morarji for the manufacture of Triple Super Phosphate—a fertiliser. But it appears that very little Phosphoric acid was actually sold on these lines, the reason apparently

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*A study of the files relating to this unit indicates that the initial reaction in Government to the application of Excel Industries was to reject it on the ground that there was no scope for licensing any additional capacity for Phosphoric acid. This was the reaction in February, 1964. In the meanwhile, an application was received from Mrs. Sharada Mukherji in April, 1964, for the expansion of capaicty for manufacture of Phosphoric acid to 23,000 tonnes. When considering this application together with other applications, *viz.*, those from Star Chemicals, Excel Industries and others, the approach appears to have changed and all the applications pending at that time were recommended, though the capacity recommended by D.G.T.D. was small—3,000 tonnes in the case of Excel Industries as against the application for 7,000 tonnes. On the other hand, Mrs. Mukherji was sanctioned a capacity of 20,000 tonnes as against 23,000 tonnes applied for. All other units licensed in this area were very much smaller in comparison. It appears also to have been decided, after these licensces were issued, that the item should be put on the 'banned' list.

being that the demand for Triple Superphosphate had not picked up as expected and, in 1970, Dharamsi Morarji agreed formally to release AMP from supplying it Phosphoric acid to the extent it was required for the manufacture of STPP.

2·09 The Company's plant was commissioned in November, 1967, and its operations since then have been confined to the manufacture of Phosphoric acid and STPP. The record of production, is indicated by the following figures :-

TABLE 3

(in M.T.)

Year	Phosphoric Acid		STPP		Capacity utilisation
	Quantity	Value	Quantity	Value (in Rs. lakhs)	
1967—68	5,186	@	3,098	105·33	24·8%
1968—69	7,418	@	4,891	162·33	39·7%
1969—70	11,155	@	8,589	262·39	68·8%
1970—71	17,348	@	12,569	381·97	96·9%
1971—72	17,577	@	16,440	500·76	93·5%

2·10 The average selling prices charged by the Company during the years 1968 to 1972 have been as follows:-

TABLE 4

Year ending	Average selling price of STPP per tonne	Quantity sold (Tonnes)*
31-10-1968	Rs. 3,400	2,793
31-10-1969	Rs. 3,319	4,550
31-10-1970	Rs. 3,055	9,067
31-10-1971	Rs. 3,039	12,460
31-10-1972	Rs. 3,046	16,579

2·11 This Company was recently licensed to expand its capacity to 25,000 tonnes per annum. The Company has stated that it hopes to complete the installation of this capacity by early 1974.

2·12 It needs to be mentioned that STPP was being imported into the country upto 1969, but the imports were totally banned from that year. As neither Star Chemicals nor Excel Industries the other two units licensed to produce STPP, are actually producing that material, Albright Morarji enjoys a monopoly in this market. It is true that the market developed slowly in the initial period as NSD capacity in the country was not initially very large. The market has, however, improved in recent years and the Company has been able to do quite well in terms of profitability. Even in 1969 it earned 33·61 per cent gross profits (before interest, development rebate and taxes) on its share capital, and in 1972 this rate increased to 128·07 per cent; the net profit (after interest, development rebate and tax) as a proportion of average capital employed ranged from 8·8 per cent to 19·7 per cent. The Company has been able to declare dividends from 12 to 15 per cent in the last three years and it has also recently issued bonus shares worth about Rs. 40 lakhs against the paid up capital of Rs. 100 lakhs.

@No sale because phosphoric acid was used for captive purposes.

*In addition, the Company has been allowing to its customers a rebate of Rs. 500 per tonne on the increasing quantities of STPP used in the NSD exported by them.

CHAPTER III

DEMAND FOR STPP

DEMAND FOR SYNTHETIC DETERGENTS

Substitution of Soap by N S D

3·01 As pointed out in the Majority Report of the Commission, the demand for STPP is essentially a derived demand, the ultimate demand being the one for NSD. Partly on account of the shortage of fats and oils, and partly on account of the greater effectiveness of NSD for washing purposes, there has been a tendency all over the world in the last two decades for soap to be substituted by NSD. It would therefore be necessary to examine in some detail the demand for NSD in order to understand the requirements of STPP in the national economy. Most of the basic data have been given in the Majority Report. I shall therefore confine myself to only the points which have to be specifically emphasised in the context of my analysis of the problem. One of the usual assumptions in estimating the future demand for NSD is that it is desirable in the Indian context that soap should be increasingly substituted by NSD. The fact that the production of edible oils has not increased adequately and that there has been a resultant shortage of this essential commodity for human consumption is undoubtedly an important factor in this respect. While the use of non-edible oils in the production of soaps has been increasing—and Hindustan Lever through its research organisation has made a useful contribution towards such substitution—this process has not reached a magnitude which would significantly reduced the pressure on the availability of edible oils. With, the shortage of domestic supplies, the only other way of maintaining the supply of oils and fats for the soap industry is to import these. This involves quite a sizeable foreign exchange bill. It is understood that 75% of the requirements of hard varieties of oil like tallow, palm oil etc., which are used in the soap industry are being met by imports. With the foreign exchange constraints faced by the country, this is an important reason why the substitution of soap by NSD is thought to be a matter of urgency and importance.

3·02 It should not of course be overlooked that NSD also has an import content. The basic ingredient of NSD, dodecil benzene (DDB), has had to be imported right from the beginning of the production of NSD in India. The other materials imported are rock-phosphate and sulphur, which constitute two important raw materials for the production of STPP. One estimate received by us suggests that the foreign exchange requirement for one tonne of laundry soap is Rs. 540; and to manufacture equivalent NSD (*i.e.*, in the proportion of one tonne of NSD to 1·6 tonnes of laundry soap which is said to be the effective equivalent in terms of washing), the foreign exchange requirement is Rs. 390. The Government of India has had under consideration the production of DDB in the Petro-Chemical Complex at Barauni and it was earlier expected that DDB would become available by 1971. It was on this expectation that certain expansions in the capacity to produce NSD were sanctioned in 1968. Subsequently, it was decided that the manufacture of DDB would be taken up in the public sector as a part of the Petro-Chemical Complex in Gujarat and the present expectation is that DDB would become available from this source by 1976. In this connection it should also be noted that one of the earlier expectations regarding the availability of DDB was that a Second DDB plant—or an expansion of the first proposed plant—would be undertaken shortly after completing the first plant and that this would enable the country to do away with the imports of DDB. With the revised thinking in Government about imports of petroleum crude, it appears that there may be substantial revisions in the whole Petro-Chemical plan. The representative of the Planning Commission stated at the Public Hearing of this case that, while there may be little uncertainty about the first DDB plant with a capacity of 30,000 tonnes, nothing definite can be stated at present about any further expansion of the production of DDB. If the detergent alkylate (DDB) is manufactured in the country the foreign exchange needed for NSD production is expected to decline to Rs. 150 per tonne. If DDB continues to be imported, the foreign exchange content will remain at Rs. 390. It is thus seen that the foreign exchange requirement for NSD at present is about 72% of that required for the effective equivalent production of soap. When detergent alkylate becomes available from indigenous sources, either by 1976 or as some sources expect—by 1978-79, the foreign exchange requirement for NSD will decline to 40% of that required for an equivalent production of soap.

3·03 When considering the desirability of substituting soap by NSD some other aspects also need to be kept in view. A very large part of the present soap production in India is undertaken by small scale units; these units also are labour intensive and thus provide employment to large numbers. Detergents can be economically produced in large units which are capital intensive and therefore have less employment potential. The import content of the plant for producing NSD is significantly larger than that of plant for producing soap. These factors do suggest that the idea that soap shoud be substituted by NSD at a very rapid rate should not be accepted without further examination.

Effect on Environment

3.04 One other aspect regarding encouraging the use of NSD which needs to be touched upon in this connection is the possible effect on environment of the use of NSD. The Majority Report has already given certain data about this question. The two main points that emerge from the views cited therein are :—

(i) that no effective substitute for STPP in the composition of NSD has yet been found even though much search has been made for such a substitute, specially in the United States;

and

(ii) that such a problem has not arisen in India upto now.

The latter statement emerges from a way of thinking according to which Indian development must always follow the development in advanced countries, not only in its good points but also in its failures,and that we should wake up to possible mal-effects of certain developments only after the mal-effects have actually made their presence felt*. In my view, this is a fallacious approach. At least one of the possible benefits from making a late start in economic development is that lessons can be learnt from other's experience and advance precautions taken to avoid some of their mistakes and pitfalls. It would also not be correct to say that in India we shall not have the problem of stagnant waters and that therefore entrophication will not pressent any significant difficulty. In the peninsular part of the country and also in many other areas, the source of water including streams and rivers are almost stagnant pools during the major part of the year, and there is little flow of water at that time. The same source of water is usually used for all purposes in many rural areas. Therefore, the statement that we do not have stagnant water in most parts of the country is not correct. The really significant point in this context is the first one, viz., that up to now no effective substitute for STPP has been located. This does however indicate that the search must continue and that if producers of NSD are to remain interested in such a search, they should themselves not be overcommitted to the use of STPP.

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STPP in NSD

3·05 It is also necessary to give further thought to the questions whether the composition of NSD should include as much STPP as is at present being used by certain producers like Hindustan Lever. A non-soapy detergent contains an organic compound—DDB—which imparts the basic surface—active property and, in addition, the undermentioned elements as builders for obtaining the various results indicated :—

(a) Phosphates such as STPP and sodium-pyro-phosphate as foam extender;

(b) Sodium-carboxy-cellulose to improve soil and dirt suspension;

(c) fluorescent dyes as brighteners; and

(d) sodium-silicate to avoid aluminium corrosion in washing machines.

The composition of detergents as indicated by various existing and intending producers of NSD in India is given in Table 5. This indicates that the requirments of STPP as seen by different producers varies from 20% to 30%. It is understood that one majar producer of NSD has recently introduced a product which uses no STPP at all. On the other hand, it is well known that, in the United States, the detergents in use contain STPP in the proportion of even 40 to 50%.

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*In this connection should it be noted that the Government of India is becoming increasingly aware of the pollution problem and, to begin with, a water pollution bill is being prepared. The Prime Minister is reported to have addressed a comprehensive letter on the pollution problem to chief Ministers and Presidents of the Federation of Chambers and Commerce and Associated Chambers of Commerce and Industry. The Prime Minister feels that, India being a huge country and industrialisation still being limited in its sphere, pollution has yet not taken manacing proportions except in major cities. "Still", the Prime Minister feels, "the country cannot afford to be negligent of its cities from a long term point of view. Undoubtedly, the question of pollution is being treated somewhat lightly in this country. There is no reason why the anxiety for industrialisation should blind the country to its harmful effects right from beginning."
(See the Economic Times, July 30, 1973).

3·06 According to the applicant Company, the average STPP content of NSD powder and bars should be between 25 to 35% to give optimum detergency in all conditions. They have stated that they have always used STPP to the extent of 32% in their powder and their experimentation for detergent bars with different levels of STPP have confirmed their conclusion that this much STPP is essential. It has been pointed out that STPP not only serves the purpose of softening hard water which is of great importance in washing but it also makes the active element in the detergent very effective. It has been further stated that :—

> "although differential formulations for hard and soft water can be produced, they cannot be practically marketed and economically distributed, because of the geographic pattern and constantly changing nature of the hard and soft water areas. Unlike some other countries, India's soft water areas are neither easily isolated nor constant. Usage of synthetic detergents is still primarily in urban areas. Whereas the majority of town in the north and east of the country are hard water areas (and so require a high STPP level) the pattern in the west and south is very uneven.
>
> For example, Bangalore and Madras (relatively high synthetic detergent towns) have hard water; Bombay Metro has soft water, but very high degrees of hardness are encountered within a short distance of the city. Furthermore, in many parts of the country, considerably varying degrees of hardness are found within the same towns and villages often dependent upon whether it is tap or well water. (As just two examples, the 'permanent' water hardness only of tap and well water were measured as 6 and 55 mgs/litre in Indore, 45 and 110 mgs/litre in Hyderabad).
>
> "We have, therefore, been reluctantly obliged to conclude that—
>
> the absence of large exclusive areas of soft water, and the variations of hardness often found from time to time (and even at the same time) in some major towns and villages, coupled with
>
> the impossibility of quantifying how much dirty laundry with what degree of soiling will be in the wash-load
>
> make distribution of separate formulations for hard and soft water areas impractical".

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TABLE 5

Composition of NSD as indicated by Various Producers

(Quantity in tonnes required for 100 tonnes of NSD)

S. No.	Units / Raw material	A	B	C	D	E	F	G	H	I	J	K	L
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Alkylate Benzene*	14.7	17.5	17.0	**16.0	**14.7	**18.0	**20.0	**20.0	22.5	**13.0	**14.0	—
2.	S.T.P.P.	30·0	20·0	30·0	27·5	30·0	30·0	27·5	25·0	27·5	27·5	30·0	30·0
3.	Olium	15·0	..	..	..	..	..	..	..	..	..	..	..
4.	Sodium Sulphate	23·0	35·4	30·0	..	..	28·0	21·0	25·0	Upto 25	..	..	..
5.	Sodium Silicate	18·0	..	10·0	..	15·0†	7·0†	17·0†	20·0†	12·5	..	..	..
6.	Caustic Soda	4·0	..	..	..	..	4·0	..	..	..	..	..	..
7.	Sulphur	..	2·5	3·0	..	..	3·5	..	..	..	..	..	..
8.	Sulphuric Acid	..	..	..	18·0	16·0	..	..	..	..	19·0	16·0	..

* Imported; ** Dodyecl Benzene; † Soda Ash.

NOTE.—The names of existing or intending producers who have supplied this information have not been indicated and the units are marked A, B, etc. so as not to disclose the identity of individual units.

3·07 While this statement forms a very strong case in favour of assuming that the use of STPP to the extent of 30% in NSD may be unavoidable, it needs to be mentioned that there has not been a thorough investigation of this problem by any disinterested agency. A producing organisation which wants to cater to a countrywide market and wants to ensure adequate flexibility in its marketing and sales set up would naturally prefer to have a uniform product all over the country. While this may be important marketing consideration, in view of the possible mal-effects arising from increasing use of STPP, public interest requires that the proportion of STPP should wherever possible be limited to what is strictly necessary according to the nature of the water supply available in a given area. This is also important in view of the import content in the production of STPP, which appears to remain un-avoidable in view of the fact that adequate sources of neither rock phosphate nor sulphur are available in the country. While the Commission cannot go further into this for the present enquiry, the important point that emerges from this discussion is that much greater thought needs to be given to the question of the STPP content of NSD products. NSD producers themselves would have no antipathy towards such studies and would not mind modifying the composition of their product if it is found necessary and practicable to do so, provided they themselves are not involved in the production of STPP. This is an important reason why a producer of NSD should better be kept out of the production of STPP. He would then have little vested interest in continuing the use of STPP a large proportion in the composition of NSD.

Demand Estimates for NSD

3·08 The Majority Report has already indicated the various demand estimates that have been made for synthetic detergents by various official agencies and specially by the "Sub-Group on Soap and Detergents" of the Planning Commission's "Committee on essential commodities and articles for mass consumption". The Planning Commission has not yet taken a final decision on these demand estimates which, it must be noted, were prepared much before the Approach document which forms the basic policy guidelines regarding the Fifth Plan. One of the important aspects of the Approach guidelines is that the policy will be to raise the standards of consumption of the lowest 30% of the population and, for this purpose, to bring about a certain reduction in the consumption standards of the top income groups. We have no data to indicate how such a policy would affect the possible demand for NSD. We enquired from the applicant Company at the Public Hearing as to what their market surveys showed regarding the categories of population which consumed NSD. Their answer was that NSD is increasingly being marketed among the lower income groups in the urban areas and also in rural areas though the quantum of consumption by these groups is not very large. NSD is at present largely consumed by upper and middle income groups, *i.e.* by persons with incomes exceeding Rs. 500 per month. If the country actually succeeds in reducing the consumption of the top income groups and increasing the consumption of the lowest 30% of the population, it is not unlikely that the demand for NSD will not increase in the proportion and at the rate that the Sub-Group has envisaged. It should also not be overlooked that the sub-Group has projected a rate of growth of 26·5% per annum—a growth rate which was actually observed in the period between 1968 and 1971. This was a period of very rapid growth basically because not only did various NSD units came into full operation by 1968-69 but they were also permitted expansion of capacity which required little or no setting up of new units and only marginal additions to plant and machinery. Whether such an unusually high rate which prevailed over a short period of three years should be used for projecting the demand for the next Five Year Plan is some what questionable. This estimate is also partially based on the assumption of a deliberate substitution of soap by NSD. One of the basic understandings behind this assumption was that 52,000 tonnes of DDB would be available from indigenous sources. This assumption, as indicated above, has now become somewhat questionable.

3·09 The applicant Company also furnished certain demand estimates regarding NSD at the time of the Public Hearing. A detailed note on the methodology used by the applicant Company is enclosed (Annexure II). This would indicate that in making the demand estimate, the question of income elasticity of demand has not been clarified. Moreover, the distribution of income among the different strata of population has not been at all considered. As already indicated earlier, with the emphasis in the Approach to the Fifth Plan on a change in the income and consumption distribution among different sections of the population, this factor cannot but have a significant impact on demand in the Fifth Plan period. If income distribution changes in favour of the lowest strata of population, it is not at all unlikely that the demand for NSD products will not increase in the manner assumed. There are also some other inadequacies in the method as well as the actual calculation of demand presented by the applicant Company.

3·10 When considering the validity of these demand estimates regarding NSD for deriving the estimate of the demand for STPP, these limitations will have to be given due weight. Hindustan

Lever's own estimates of demand for NSD (after removing some arithmetical mistakes), if the substitution of soap by NSD is calculated on the standard basis of 1·6 tonnes of soap to one tonne of NSP, would be seen to be as follows :—

TABLE 6

(000 tonnes)

	High estimate		Low estimate
	As given by the company	As corrected	
1973	92	92	92
1974	115	115	115
1975	140	140	140
1976	176	176	176
1977	277*	254	215
1978	342*	312	263
1979	411	375	315
1978-79**		344	289

*After correcting arithmetical mistakes.

†Derived from above.

For the end year of the Fifth Plan (1978-79), the demand estimate of the applicant Company on the assumption that production of soap does not increase and all additional demand is met through the production of NSD, would be 344,000 tonnes.

NSD Capacity by 1978-79

3·11 When considering the demand for STPP in the year 1978-79, it is also important to examine whether, even if the Government and the Planning authorities finally accept a demand estimate of 3,55,000 tonnes per annum of NSD and sanction total industrial capacity to that extent, it is likely that actual capacity for producing this quantity of NSD would be installed by that time. It has already been shown that the capacity installed for the production of NSD at present is 55,700 tonnes. In addition, a capacity for 52,000 tonnes has been approved by way of substantial expansion of the existing units and part of this capacity is already under operation and the remaining will be in operation in the near future. Licences and Letters of Intent have been issued up to now for an additional capacity of 1,31,700 tonnes per annum. As the statement below indicates, some of these units were given Letters of Intent more than four years age.

TABLE 7

S. No.	Name of the concern	Proposed Location	Annual Capacity (Tonnes)	Whether Licence or Letter of Intent	Date of Licence/ Letter of Intent.
1	2	3	4	5	6
1.	Punjab State Industrial Development Corporation	Rajpura (Punjab)	10,000	Licence	25-5-72/1969
2.	WITCO	Near Baroda	10,000	Licence	1-4-72
3.	Godrej Soap	Bombay	10,000	Licence	10-12-71/1968
4.	Government Soap Facotory, Bangalore	Bangalore	10,000	Licence	21-3-72*/1968
5.	Ulteramarine Pigments . . .	Madras	10,000	Licence	28-12-71/1969
6.	Bombay Soap Factory . . .	Bombay	7,200	Licence	25-6-73
7.	Laxmi Industries, Bombay . .	Hansi (Haryana)	7,200	L.I.	17-8-73/1969
8.	Haryana State Industrial Development Corporation	Haryana	10,000	L.I.	21-7-72

TABLE 7—*Contd.*

1	2	3	4	5	6
9.	M.P. State Ind. Dev. Corporation	M.P.	10,000	L.I.	21-7-72
10.	DAI Ichi Kharkaria Bombay	Mathura (U.P.)	10,000	L.I.	26-9-72
11.	—Do.—	Hyderabad (A.P.)	10,000	L.I.	21-7-72
12.	Swadeshi Detergents	Ghaziabad	10,000	L.I.	21-7-72
13.	M.K. Jaju	Jaipur	10,000	L.I.	21-7-72
14.	Kusum Products	Calcutta	7,300	L.I.	23-4-73

*The first licence for a capacity of 1200 tonnes p.a. was given 17th May, 1965.

They have not been able as yet to instal the capacity and initiate production. We can not therefore be certain about the extent to which the capacities that have already been licensed (or where letters of Intent have been issued) will actually come into existence and go into full production by 1978-79. Moreover, to achieve a capacity of 3,55,000 tonnes further capacity to the extent of 1,15,600 tonnes will have to be licensed and installed between now and 1978-79. Applications from 58 units for a total capacity of 6,35,800 tonnes are pending with Government for consideration. Taking into account the fact that a number of licensees have not been able to instal the capacity licensed to them even in a period of four or five years in the past, one cannot but be sceptical about the possibility of an additional capacity of about 1,15,000 tonnes being licensed, installed and brought into operation in the next five years, this being in addition to the capacity of 1,31,700 tonnes already licensed which is to be installed by 14 units. The fact that the total requirements of DDB required for this production of NSD, *viz.* 52,000 tonnes is not likely to be available from indigenous sources even by 1978-79, and at least 22,000 of this will have to be imported, may also prove to be another stumbling block in the way of so much capacity for NSD being finally licensed and installed.

3·12 Another important point regarding the possible implementation of the licences granted for the production of NSD should not be overlooked; and this is directly related to the present applicant. As already indicated earlier, the present applicant has enjoyed a very favourable position in developing its NSD capacity in the past and due to this as well as its world wide experience in the marketing of consumer products, it has been able to maintain its predominance in the NSD market in India. As already mentioned above, it has already applied for two more NSD units as a part of its package for the dilution of foreign equity. The Government having now included NSD as one of the core industries also indicates a possibility that such expansion of the applicant company may be permitted by Government. A similar view may be taken regarding the expansion of the other existing large Indian producers, *viz.*, TOMCO and Swastik. As we shall further discuss later, if the present proposal of the applicant Company is approved, it will be in a position to obtain 46 per cent of the raw materials required for the production of NSD on terms more advantageous than would be available to the new intending entrants in the NSD industry. The Government has now decided that it would favour the setting up of units with a capacity of 10,000 tonnes each. It is therefore likely that none of the new units would have enough strength to compete with the existing large units in the industry which have capacities much larger than 10,000 tonnes They might be especially frightened by the spectre of having to compete with Hindustan Lever which is already predominant and whose size in the NSD industry and competitive strength may be further increased if its proposals for setting up a STPP plant and two additional NSD units are approved. It is not at all unlikely that in such a contingency a number of the smaller Indian entrepreneurs would hesitate to enter the industry. Thus the very approval of the present proposal and the other inter-related proposals of the applicant Company might make it less likely that the expected NSD capacity would be created by the various Indian entrepreneurs to whom Licences and Letter of Intent for a capacity of 10,000 tonnes each are being or will be granted. The actual demand for STPP by the year 1978-79 in that event may be much less than would be the case if a capacity of 3,55,000 tonnes for the production of NSD was set up.

3·13 The purport of the above discussion is clear. There are no valid grounds firmly to assume that the demand for NSD by 1978-49 would amount to 3,55,000 tonnes.. Secondly, it is also very uncertain whether a capacity in the NSD industry adequate to produce 3,55,000 tonnes per annum would be installed by 1978-79 . There are reasonable grounds to believe that the actual capacity for the production of NSD by 1978-79 would be much short of 3,55,000 tonnes.

The Demand for STPP

3·14 We have already examined earlier the question regarding the production of STPP required for the production of NSD. That discussion indicated that there are grounds for questioning the assumption that it is uniformly necessary to plan for the inclusion of STPP to the extent of 30 percent in the composition of NSD. We should not therefore estimate the demand for STPP on the firm assumption of it being a derived demand to the extent of 30 per cent of the demand for NSD. Taken together with the various doubts regarding the possibility of the production capacity of NSD itself reaching a figure of 3,55,000 tonnes per annum by 1978-79, we have little basis to arrive at the derived demand estimate for STPP at 1,06,500 tonnes on a firm footing. It does not therefore appear essential to make sure that capacity for the production of 1,33,000 tonnes of STPP must be approved immediately. It is not at all unlikely that a much smaller capacity would be quite sufficient to meet the actual requirements likely to arise by 1978-79. It is important to emphasise this in view of the fact that the production of STPP and other related products is an industry which is capital intensive and which also involves import of plant and machinery. Making an unduly liberal assumption about the capacity requirement can be deterimental to the nation's economy. It would not be proper to approve the proposal merely or mainly for avoiding a possible shortage, especially when the possibility of such a shortage arising is not firmly established. A poor country with scarce capital resources, and scarce foreign exchange resources, can ill afford to permit an investment merely to avoid the remote possibility of a shortage.

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CHAPTER IV

BALANCE OF SUPPLY AND DEMAND

The Supply Side

4·01 After considering the question relating to the demand for NSD and the demand for STPP derived from it, we may now turn to the possibilities of supply of STPP in the next five year period on the basis of such data as are available to the Commission.

4·02 The basic information regarding the supply side of STPP may be seen in Table 8. The installed capacity will be 25,000 tonnes by early 1974, all of it located in Bombay. This capacity is located in one unit, viz., Albright Morarji & Pandit (AMP). We shall now examine the prospects of the various other units coming up and producing STPP in the next five years.

Ballarpur Paper and Straw Boards Co. Ltd.

4·03 This Company is intending to produce STPP by using a process different from the one used by Albright Morarji and Pandit, which is also the process proposed to be used by Hindustan Lever. Chlorine will be a bye-product of the other paper and pulp projects of the Company. As chlorine is a dangerous chemical, it has to be disposed of in a suitable manner. If it is dumped in the sea after being converted into hydrochloric acid, it may still constitute a danger to marine life. It is therefore almost essential that the Company should utilise the chlorine through the production of hydrochloric acid for a productive purpose. That is why the Company has proposed the production of STPP through the use of the hydrochloric acid process. The Company claims that, by utilising this process, it would be able substantially to save recuring imports of sulphur which are involved in the production of STPP through the sulphuric acid route. The Company has already been granted a letter of Intent for the production of 10,000 tonnes per annum of STPP. As the Company observed that the demand for STPP is likely to be larger, it has applied for enhancement of capacity to 24,000 tonnes per annum. The Company has already made agreements with the Government of Mysore for land, water and electricity. Land at Karwar has been obtained and civil construction has begun. It appears therefore quite reasonable to expect that a capacity of at least 10,000 tonnes per annum will be established by this Company in the next few years. In view of the fact that economies of scale are significant in chemical industries, it is not unlikely that a capacity of 24,000 tonnes per annum may be found to be more economical than one of 10,000 tonnes per annum. If the Government approves of the proposal to enhance this capacity as suggested by the Company, it is not unlikely that the capacity for 24,000 tonnes may also come up in the not too distant future.

TABLE 8

Likely supply position of STPP

	(Tonnes)
I. *Licensed capacity*	
(i) Albright Morarji & Pandit	25,000
(ii) Excel Industries	1,000
(iii) Star Chemicals*	180
Sub-total	26,180
II. *Capacity for which Letters of Intent are issued*	
(iv) Ballarpur Paper & Straw Board	10,000
(v) Travancore Titanium Products	36,000
Sub-total	46,000

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*It is not clear why the D.G.T.D. assumes that the licensed capacity of Star Chemicals is 180 tonnes of STPP. As indicated in Chapter II, the licensed capacity of this concern for Phosphoric Acid and Industrial Phospate is much larger; it has not been able to implement it because of Government's refusal to permit it to instal capacity for the production of Surlphuric Acid.

III. *Capacity recommended by the Licensing Committee*	*(Tones)*
(vi) Delhi Cloth and General Mills	20,000
(vii) Hindustan Lever	(30,000)
Sub-total (excluding Hindustan Lever)	20,000
IV. *Capacity recommended by the D.G.T.D.*	
(viii) Bharat Commerce & Industries	20,000
(ix) Tata Mills	17,000
Sub-total	37,000
V. *Applications under consideration and likely to materialise*	
(x) Hindustan Copper	20,000
(xi) Ballarpur Paper and Straw Board (further expansion)	14,000
(xii) Albright Morarji & Pandit (Further expansion)	25,000
Sub-total	59,000

4·04 This project has the following advantages in the present context—

(i) it is being put up by a company which is not in the product on of NSD and does not appear to be interconnected with any concern producing NSD;

(ii) it is a part of a large complex relating to paper, pulp and various chemicals;

(iii) it helps in effectively utilising a bye-product which otherwise would go waste and affect the environment adversely; and

(iv) it may use a process which will save imports of sulphur in the production of STPP.

Travancore Titanium Products Ltd.

4·05 This public sector undertaking, belonging to the Government of Kerala, has been mainly engaged in the production of titanium dioxide. In the process of producing this material, a large quantity of sulphate is produced and this is at present going waste and being dumped in the sea. The Company obtained a Letter of Intent for the production of 66,000 tonnes per annum of STPP in order to utilise this waste product. Though it obtained this Letter of Intent in July, 1972, its intention earlier appears to have been to set up the STPP unit at a somewhat later stage of its development programme. However, as mentioned in the Majority Report, circumstances have compelled Travancore Titanium to give priority to the STPP project. The discharge of sulphate is creating a pollution problem on the Kerala Coast and is disrupting marine life. As this has already affected the local fishing industry to some extent, there has been much thinking in Government about the necessity to take urgent steps to avoid the present method of disposing sulphate. This is of even greater importance as the production of titanium dioxide is proposed to be increased and the production of sulphate also would then go up. It has therefore been decided by the State Government that urgent steps must be taken to utilise the sulphate. If this is not done, there is a threat that the production of titanium dioxide will have to be brought to a halt. This is the reason why the Company has now decided to give priority to the setting up of the STPP plant. In view of the above mentioned factors, it now appears very likely that this project will be set up in the next few years.

4·06 The main points in favour of this project may be listed as follows :—

(i) the project is based in a backward area in a backward State and is in the public sector;

(ii) setting up the project would eliminate a major source of pollution of sea water and at the same time provide a major raw material for the production of STPP, to that extent avoiding the use of imported materials;

(iii) Travancore Titanium is not at present engaged, and is not likely to be involved in future, in the production of NSD;

(iv) Travancore Titanium claims that the project will be based on Indian know-how.

Delhi Cloth and General Mills Ltd.

4·07 This company has been engaged in the production of chemicals for a long time and produces, among other items, caustic soda, liquid chlorine, hydrochloric acid, sulphuric acid and super phosphates in sizeable quantities. It is proposing to produce 20,000 tonnes per annum of STPP and other related chemicals. The Company claims that it has developed its own technical know-how and the therefore will not require to obtain such know-how from foreign sources. It is already in the chemical line in a big way, and hence the proposed development would be in keeping with its normal growth. This feature will also make it possible for DCM to implement the project with speed. The company has claimed that if it receives permission in 1974 to go ahead, it expects to produce 10,000 tonnes of STPP by 1975, and 20,000 tonnes by 1977. It has also pointed out that the capital costs required by it would be lower as compared to others because it will be able to make use of the existing facilities in its chemicals division.

4·08 The main points to be taken note of regarding this prospective producer of STPP are :—

(i) the production of STPP would be in the nature of a logical extension of its existing activities;

(ii) no foreign know-how is likely to be required, as it is claimed that the know-how has been developed by the company on the basis of its own R & D effort;

(iii) it is a hundred per cent Indian company;

(iv) the Company is not at present producing NSD. It needs to be noted however that it has applied for a licence for the production of NSD and the application is still pending with the Government.

Hindustan Copper Corporation Ltd.

4·09 This is a public sector undertaking which is setting up the production of copper at Khetri. The Company has stated that phospheric acid, one of the basic raw materials for the manufacture of STPP, would be available from its acid-cum-fertiliser plant which is a part of the Khetri, Copper complex. About 68,000 tonnes of phosphoric acid will be produced very early in 1974 and the company proposes to utilise a part of this for the production of STPP. A preliminary feasibility report on the project has already been prepared for the Company by Engineers India Ltd., another public sector undertaking, and further actions to select a suitable process and set up the plant are being taken. The Company has applied in June 1973, for an industrial licence for the production of STPP.

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4·10 The main points to be noted in connection with this proposal are :

(i) it is being undertaken by a public sector undertaking;

(ii) the proposed production of STPP will utilise phosphoric acid which would be a by-product of the total complex;

(iii) the plant is being located in one of the industrially backward States, viz., Rajasthan;

(iv) the Company intends to secure foreign know-how;

(v) phosphoric acid will become available early in 1974, and the Company expects to complete construction of the plant within 36 months from the date of obtaining the sanction of Government.

Bharat Commerce/Industries Ltd.

4·11 This Company, belonging to the House of Birlas according to the Industrial Licensing Policy Inquiry Committee (ILPIC), has applied in January, 1973, for setting up a unit for the production of 20,000 tonnes per annum of STPP and related quantities of sulphuric acid and phosphoric acid. It is proposed that the unit would be set up in a backward district of Maharashtra. The Company has indicated that it may require foreign technical know how for the production of STPP. Its application has been recommended by the DGTD, but it has still to be examined by Government.

Tata Mills Ltd.

4·12 This Company belonging to the House of Tatas, according to the ILPIC, has applied in November, 1972, for setting up a unit for the production of 17,000 tonnes per annum of STPP

It has proposed to locate this unit in Srikakulam or Vizagapatnam in Andhra Pradesh. The exact location is to be decided in consultation with the Government. The Company proposes to obtain technical know-how from a Belgian firm and has submitted specific proposals to the effect.

4·13 About these two proposals, the following points need to be noted :—

(i) both of them are from companies which are mainly engaged in other lines of production;

(ii) both these belong to larger Houses; both are 100% Indian;

(iii) both proposals appear to be for setting up units in backward district locations;

(iv) both appear to require foreign technical know-how;

(v) while both proposals have been recommended by DGTD, these are still being examined and one does not know when the final decision would be taken.

Albright Morarji & Pandit Ltd.

4·14 This Company which is at present a monopoly producer of STPP in India has applied for expansion of its presently licensed capacity of 25,000 tonnes per annum to 50,000 tonnes per annum. This Company had foreign collaboration with one of the most prominent producers of STPP in the United Kigndom, viz., Albright Wislon, which also held equity in this Company to the extent of 46 per cent. The main point about the know-how for the future is that the foreign technical know-how has already been paid for and no further payment would be involved for this purpose even if the production is expanded. It has been claimed that expansion upto 25,000 tonnes is likely to be completed by early 1974. Planning for the next stage of expansion to 50,000 tonnes has been undertaken. The Company has claimed that, due to the various economics it would be able to achieve as a result of such an expansion, there would be a considerable saving in terms of capital expenditure and that therefore the cost of producing STPP would also be reduced. As against about Rs. ten crores estimated to be the capital cost by Hindustan Lever for installing a capacity of 30,000 tonnes of STPP and related quantities of Sulphuric acid (54,000 tonnes) and Phosphoric Acid (19,500 tonnes). AMP claimed that their capital cost for expansion from 25,000 tonnes to 50,000 tonnes per annum of STPP would be only Rs. 5·25 crores and that, as a result, the bulk cost of production per tonne of STPP which would be Rs. 2,497 for a new plant of 30,000 tonnes per annum will be only Rs. 2,124 on the basis of their proposed expansion. AMP have pointed out that as production has increased they have reduced their selling price of STPP from Rs. 3,400 per tonne in 1968 to Rs. 3,046 in 1972. It has been stated that on completing the expansion to 25,000 tonnes, it should be possible to reduce the price further by Rs. 100 per tonne and, if the production increases to 50,000 tonnes, a further reduction by Rs. 100 per tonne may be possible. The Company has stated that it has taken steps to reduce equity holdings by its foreign collaborators from 46 per cent to about 40 percent by disinvestment. It was also stated at the Public Hearing that, subject to the approval of the Government, it is proposed to reduce such foreign equity further to 26% simultaneously with the proposed expansion. It needs to be noted in this connection that a large Indian concern, Dharamsee Morarji Chemical company, holds 27 per cent of the equity in this Company and there is considerable technical collaboration between that company and AMP.

4·15 the main points to be noted in connection with this proposal are :—

(i) this unit at present holds a monopoly position in the production of STPP and is likely to continue to be predominant in this industry even without any further expansion;

(ii) the expansion will not require any additional funds for foreign technical know-how as the know-how has already been paid for and no further payment will be required;

(iii) there are likely to be substantial economies of scale as a result of the expansion both in terms of capital costs and the current cost of production;

(iv) the expansion is likely to be achieved in a comparatively short time as the concern is already well versed with the various problems regarding this line of production;

(v) the Company has a substantial foreign equity but it has already taken steps to reduce it from 46 per cent to below 40 per cent, and it is proposed to reduce it further to 26 per cent if the Company's capacity is increased;

(vi) following the example of the foreign collaborator, this Company has also kept out of the production of NSD and has stated that it has no intention of entering that line of production in future.

4·16 There are other applications for the production of STPP which are under consideration of Government. But these are from different individuals and we have no means of ascertaining to what extent these individuals are capable of undertaking the projects even if Government grants them permission to do so, and also how long they will take to implement a project of such magnitude. It would therefore be safer not to rely upon these proposals being implemented for the purpose of understanding the likely position of production and supply of STPP by 1978-79.

The Overall Balance

4·17 The above discussion indicates that it is quite likely that the following concerns will set up capacities indicated against their names by 1978-79 in case these are sanctioned by Government:

1.	Travancore Titanium	36,000	tonnes
2.	Hindustan Copper	20,000	„
3.	Ballarpur Paper and Straw Board	24,000	„
4.	Delhi Cloth Mills	20,000	„
	Total	100,000	„

4·18 It is important to recall in this connection the case of Star Chemicals, a pioneer undertaking in the field of Phosphoric Acid, which has been prevented from implementing its licensed project for industrial phosphates (including STPP) by Government refusing its permission to set up a sulphuric acid plant. From such data as are available to us, it appears to be a case where, with a comparatively small additional investment (including some foreign exchange), a capacity of almost 15,000 tonnes of STPP can be brought into existence and this will be in an undertaking which is owned fully by an Indian and does not belong to a Larger House.

4·19 The proposal of AMP for expansion from the present capacity of 25,000 tonnes to a capacity of 50,000 tonnes falls in a different category. It will undoubtedly require special scrutiny. However, an important point for the present consideration is that it would certainly be possible for this Company to add this capacity to their existing capacity within the period of the Fifth Plan. This would also give substantial economies of scale. Whether the conditions indicated by AMP, namely, reduction of foreign equity to 26 percent and the price decrease of about Rs. 100 per tonne should be considered adequate, or whether some further conditions need to be imposed, is a matter for the Government to consider separately. The fact that this Company is not producing NSD and is not likely to enter this line is an important point to be considered regarding its monopoly position.

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4·20 Regarding the two other applicants, Bharat Commerce and Tata Mills, they are 100 per cent Indian companies but belong to the larger Houses of Birla and Tata as per the Report of the ILPIC. This may indicate that if their proposals are approved it is likely that the projects would be implemented within the Fifth Plan period. We do not know whether this line of production would be merely an extension of their existing activities or an entirely new line. They also require foreign technical know-how. It will not be advisable for the Commission to express any opinion on whether these two proposals would be approved by the Government or not and if so on what conditions. All that may be said is that ordinarily their applications may be given a higher preference over the application of a company with a predominantly foreign equity. If they are permitted on suitable conditions, it is not unlikely that they will set up the required capacities within the Fifth Plan period.

4·21 Our conclusion therefore is that, in addition to the capacity of 25,000 tonnes per annum of STPP which will be available in early 1974, it appears quite likely that an additional capacity of 100,000 tonnes will be set up by public sector undertakings and other Indian undertakings whose entry into this line is likely to be approved by Government. If the capacity licensed to Star Chemicals can be activised, it will add 15,000 tonnes within a short time. It is further likely that if the expansion of AMP can be permitted on suitable conditions it may not only be completed in the Fifth Plan period but is likely to lead to substantial economies in tesms of cost. Thus a capacity of about 1,65,000 tonnes per annum can be brought into existence by 1978-79 without bringing Hindustan Lever into the picture. If necessary, it may also be possible for Bharat Commerce and Tata Mills to set up capacities of 20,000 tonnes and 17,000 tonnes per annum respectively if their proposals are permitted on the basis of suitable conditions. It may thus be concluded that public sector undertaking with a (then) 26 per cent foreign equity can among themselves create capacities for the production of STPP by 1978-79 which would be more than enough to satisfy the expected requirements of STPP by that year, even if we make a very generous estimate of the demand for STPP. Parenthetically it should be noted that while the Government has through a Press Note invited applications for setting up new capacities for the production of NSD, no such invitation has been issued for creating new capacities in the field of STPP*. It is not therefore unlikely that some proposals from hundred per cent Indian companies, which might possibly have schemes specially advantageous in terms of location or technology, might come up if proper effort is made by Government.

Possible Impact of Approving Present Proposal

4·22 On the other hand, if Hindustan Lever is permitted to create the proposed capacity for the production of STPP, it is not unlikely that some of the existing proposals may be either postponed or given up. Hindustan Lever being an important and existing potential customer for STPP, other potential producers of STPP are bound to be apprehensive about the effect on their prospective demand of Hindustan Lever setting up a large unit which can be used for captive consumption. The other prospective units may be apprehensive about the demand for their product, especially if they entertain a fear, which may not be unrealistic that the actual installed capacity for NSD by 1978-79 may prove to be much less than 3,55,000 tonnes per annum. They may thus either go slow in creating the capacity for producing STPP or even give up their projects. Those who cannot avoid producing STPP, because it is inherently connected with some other products, as appears to be the case with Travancore Titanium or Hindustan Copper, may still go ahead. But where there is a choice, the prospective producer would think twice before committing his capaital to a project whose demand prospects would be definitely dimmed as a result of Hindustan Lever's entry. It is not therefore unlikely that if Hindustan Lever's proposal for setting up a STPP plant is approved, it may even be retrospectively justified because of the adverse impact its creation may have on the setting up of other units.

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*As a matter of fact, the Government at one stage had contemplated the issue of such a Press note. When the application by DCM under the IDRA (made in December, 1971) for STPP was considered by the Licensing Committee in June 1972, it was decided that, as the DCM belongs to a Larger House, it may be worthwhile to issue a Press note to invite applications for the manufacture of STPP so as to see whether new entrepreneurs would come forward. In the meanwhile, the application from Hindustan Lever (made in May 1972) was also received. When this application was being considered, a view appears to have been taken that applications for adequate capacity had been received and there was no need for issuing a Press Note. The applications of both DCM and Hindustan Lever were considered by the Licensing Committee in September 1972, and recommended for the issue of Letters of Intent.

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CHAPTER V

REGIONAL BALANCE AND LOCATION

Regional Balance of Supply and Demand

5·01 One argument that was pleaded by the applicant Company at the Public Hearing was regarding regional balance of supply and demand. On the basis of the existing licensed capacity and Letters of Intent issued for the production of STPP, and taking into account the applicant Company's own estimate of regionwise demand for STPP, it was claimed that there would be substantial gaps by 1980 between supply and demand for the northern and eastern regions of the country (see Table below) :—

TABLE 9

	NORTH	EAST	WEST	SOUTH	TOTAL
A. Licence issued i.e. A.M.P.			25,000		
Total A			25,000		25,000
B. Letters of Intent					
(i) Travancore Titanium				36,000	
(ii) Ballarpur			10,000		
Total B			10,000	36,000	46,000
Grand Total			35,000	36,000	71,000
Estimated Demand by 1980	34,000	42,000	28,000	21,000	125,000
Gap for which licences to be given	34,000	42,000	(7,000)	(15,000)	54,000

It was therefore suggested that the present proposal of Hindustan Lever needs to be supported as it would meet to a substantial extent the expected gap between supply and demand in the eastern zone.

5.02 It needs to be noted in this connection that another intending producer of STPP Delhi Cloth and General Mills, had pointed out in its communication to the Commission setting out its objections to Hindustan Lever's proposal that, according to the calculations made by the Company, the gap between supply and demand in the northern region would be very large (see Table below).

TABLE 10

(Unit: Tonnes/Annum)

Zone	Total capacity for Synthetic Detergents (Installed/Licensed/Letter of intent)	Approx. requirement of Industrial Phosphate (STPP) for Synthetic Detergents	Total capacity for STPP (Installed/Licensed Letter of Intent)	Short-fall in STPP Capacity
North	63,600	20,000	Nil	20,000
South	20,000	6,000	36,000	30,000*
East	36,000	11,000	Nil	11,000
West	115,000	35,000	25,000	10,000

*Surplus capacity in South Zone.

As regards the eastern region, the total synthetic detergent capacity there would be (according to DCM) 36,000 tonnes per annum. It was therefore pointed out by DCM that if the proposed project of Hindustan Lever is located in the eastern region as proposed, almost 2/3rd of the production would have to be disposed of in the northern and western zones where the requirement would fall short of the capacity likely to be created. This would unnecessarily add to transport cost. It was therefore suggested that it was much more important to set up adequate capacity in the northern zone because the demand in the eastern zone is likely to be comparatively small.

5·03 The data available with the Commission regarding the capacity sanctioned for NSD units either by way of Licences or Letters of Intent do not always clearly indicate the location of the proposed project. Analysis based on such information as is available indicates (see Table below) that there would be a surplus in the West, the north as well as the south while there would be a gap of about 11,000 tonnes between the demand and supply for STPP in the eastern region if we take the projects mentioned earlier into account, and do not include the Hindustan Lever project. If the proposed Hindustan Lever project is included, then there would be a substantial surplus in the eastern region; but as pointed out earlier, there would then be considerable uncertainly about which of the other projects would come up.

Regional Balance Necessary?

5·04 The main question about this argument of the Company is however whether, regarding a commodity like STPP, regional balance is of much significance. It has been ascertained that at present the requirements of STPP of the Calcutta NSD factory of Hindustan Lever are met by transporting STPP from Bombay. The transport cost is said to be about Rs. 200 per tonne which amounts to two to three per cent of the cost of producting NSD. If the cost of transporting STPP from almost one end of the sub-continent to the other makes such a small impact on the total cost of producing NSD, and there appears to be no other problem regarding the effective transport and utilisation of STPP when it is transported over a long distance, there appears to be no reason for thinking of a regional balance for STPP. Regional balance should be thought of only in respect of commodities whose cost of transport is so high in relation to the total cost of producting the final commodity that transporting the material over long distances would be quite uneconomic. This is not the case regarding STPP. Moreover, STPP is a commodity which requires more capital to be invested for its production than NSD. Like any other basic chemical industry, significant economics are obtained by organising production on a larger scale. The production of STPP should therefore be set up wherever it is found convenient and economical to do so, and STPP can be transported without too much transport cost to the various locations of NSD units. Economies of scale in production are likely to be much more important in the production of STPP than the considerations of the location of the consuming industry, namely, NSD units. Thus there appears to be no reason to insist on a regional balance of supply and demand regarding STPP. Moreover, if new STPP capacities come up in the north, which is likely if the capacities proposed to be created by Hindustan Copper and DCM came up, units producing NSD in the eastern region would find it possible to obtain STPP at a lower transport cost than at present. It does not therefore appear to be necessary to support the proposal of Hindustan Lever on the ground that it will redress the gap between the supply and demand of STPP in the eastern region.

TABLE 11

(Tonnes)

	North	East	West	South	Total
A. *Likely Demand for STPP*					
Approved capacity for NSD	67200	36000	106200	30000	239400
STPP reqd. (@30%)	20160	10800	31860	9000	71820
B. *Possible Supply of STPP*					
1. Albright Morarji & Pandit					
Approved capacity			25000	..	
Proposed expansion	..	..	25000	..	50000
2. Star Chemicals	..	..	15000	..	15000
3. Excel Industries	..	..	1000	..	1000
4. Travancore Titanium Products	..	..	..	36000	36000
5. Ballarpur Paper & Straw Board	..	..	..	24000	24000
6. Hindustan Copper	20000	..	..	..	20000
7. Delhi Cloth & G. Mills	20000	..	..	..	20000
8. Bharat Commerce & Industries	..	..	20000	..	20000
9. Tata Mills	..	..	..	170000	17000
	40000	..	86000	77000	203000

(Hindustan Lever's present proposal has been excluded)

Location at Haldia

5·05 This is not to say that at a suitable stage an attempt should not be made to locate a STPP producing unit at Haldia. From the data made available to us in the present enquiry, it appears that Haldia would possess a significant advantage for such a location. Being a post, it would be able to receive imported materials such as rock phosphate and sulphur at international prices. An additional advantage appears to be that a substantial proportion of soda ash required for the phosphate plant would be available from the Fertilizer Corporation of India which is setting up a fertilizer and other chemicals complex at Haldia. The remaining part of the soda ash requirements may be easily obtained from Tuticorin by means of sea transport. From this point of view, Haldia may prove to be an advantageous site for the production of STPP and related chemicals. This is however no reason to insist that the present proposal should be supported. If Hindustan Lever is not permitted to proceed with the project, and it is found that Haldia provides a good location, other intending producers of STPP may well show interest in locating the project at Haldia.

Location in a Backward District

5·06 As pointed out in the Majority Report, the State Government of West Bengal has supported the project. The main point stressed by the State Government is that in view of the employment difficulties faced by West Bengal, the location of the proposed unit in that State, specially, in Haldia which belongs to one of the districts designated as backward by the Planning Commission will be of sginificant use and advantage. It has further been suggested that the location of a major project of this kind may act as a catalyst for other investments to take place.

Employment Potential

5·07 The applicant Company made an estimate of the employment potential of the proposed project. This is given in Annexure III. There are two parts of this estimate—one relating to direct employment arising from the setting up of the unit, and the other the indirect employment that would arise as a result of a number of NSD units coming up on the basis of the STPP that would become available. Rearding the former, it is claimed that the factory itself would employ 300 persons. 200 persons would be employed in the movement of raw materials and finished products arising out of the production of the factory, and provisions of spares, supplies etc. would further create employment for another 500 persons. Without going into details, one might say that the third element in the estimate appears to be highly exaggerated and the direct employment arising out of setting up of the unit is not likely to exceed 500 persons.

5·08 As regards the estimate based on the setting up of NSD units, it is questionable whethe such a development has any necessary relationship with the production of STPP in the same State. As we have indicated earlier, the cost of transporting STPP from as long a distance as Bombay appears to be minor in relation to the total cost of producing NSD and, even at present, Hindustani Lever is producing NSD in Calcutta based on supplies of STPP from Bombay. There is therefore no necessary relationship between setting up of NSD units in West Bengal, and the setting up of a STPP unit in that State. It is conceivable that in view of the potential market for NSD in West Bengal, additional capacity for producing NSD may be set up there; and this would certainly give rise to some additional employment. But this has nothing to do with whether a STPP unit is set up in West Bengal or not. When the representative of the State Government was questioned on this matter at the Public Hearing, he stated that in view of the uncertainties regarding transport, manufacturers would prefer if the sources of supply of raw materials are nearby. On such grounds, we shall have to think in terms of regional self-sufficiency in almost all items. This is not desirable from the point of view of economical and efficient use of resources. The argument that indirect employment through the setting up of NSD units is positively related to the setting up of the STPP unit cannot therefore be accepted. It may thus be concluded that the proposed unit as such would only create local employment for about 500 persons. While even this would certainly be useful, this cannot be accepted as a major consideration in thinking of the proposal.

5·09 Regarding the argument that a large company like Hindustan Lever setting up a unit in West Bengal, and specially in a backward district, would act as a catalyst in attracting other investors, all that can be said is that, on this reasoning, no proposal from a large company or a Large House for location in a backward district should be rejected! One should also not over-look the fact that, while West Bengal certainly has its problems which are well recognised, together with Maharashtra it constitutes the most industrialised part of the country. There are States like Rajasthan and Kerala which are industrially far more backward. As already indicated earlier, the setting up of the proposed unit by Hindustan Lever can well result in a setback to the proposals regarding setting up of new units for the production of STPP in these States. This result is related not so much to the setting up of a unit at Haldia as not its being set up by Hindustan Lever. This aspect of the problem cannot be ignored. The State Government may well consider whether it should not think of some other party for setting up a STPP unit at Haldia.

CHAPTER VI

HINDUSTAN LEVER'S CASE FURTHER EXAMINED

6·01 Our analysis up to now clearly established that, for the purpose of meeting the expected requirements of STPP and other related products by 1978-79 it is not necessary to permit Hindustan Lever to put up the proposed project. The expected demand is likely to be satisfied even without Hindustan Lever entering the field. We may now examine the case for approval put forward by Hindustan Lever.

Past Record

6·02 The main arguments adduced by the applicant Company in its favour have already been explained in the Majority Report and do not need repetition. It is well known that Hindustan Lever has one of the best professional managements in the country. This is in keeping with the reputation of its parent company—Unilever—as one of the pioneers in modern professional management. In recent years, Hindustan Lever has also developed a very capable R & D organisation whose record of work is certainly worthy of emulation by many Indian concerns. The work done by it on developing sources of non-edible oils needs special mention as it has attempted directly to deal with the shortage of available oils which not only creates problems for the soap industry but also leads to sizeable foreign exchange expenditure. At the same time, it cannot be ignored that there is little indication that much effort has been made to develop a non-soapy detergent which would, avoid the use of so much imported material. When this question was raised at the Public Hearing Hindustan Lever's representatives clarified that some effort at adopting a composition of NSD in India which was different from that adopted by Unilever elsewhere had been made. The Commission saw some evidence about the work that is done in the R & D Organisation regarding the washing properties of different types of NSD. It is also true that Hindustan Lever has succeeded in developing a NSD bar which is more suited to the Indian market, though it should be remembered that the attempt to develop a bar from NSD was made even earlier by the other two NSD producers, viz., Swastik and TOMCO. What one does not find is any evidence of a serious effort to develop substitutes for some of the constituents of NSD which are based on imports and especially, STPP.

6·03 Two other points relating to the record of Hindustan Lever need to be mentioned in this connection. The first is that while their R & D effort is commendable, expenditure on it a proportion of sales turnover has never reached one per cent even though Hindustan Lever is a very profitable concern and many tax incentives are available for undertaking R & D. (See Table 12). One cannot help comparing the expenditure incurred by Hindustan Lever on advertising and sales promotion with that incurred on R & D. Expenditure on marketing has been far larger than that incurred on R & D. While it is true that the introduction of a new product like NSD involves consumer education, one cannot but point out that, in an economy like India's, efforts to improve the technical quality of the product and especially to locate sources of substituting imported material should be considered far more important than sales promotion.

TABLE 12

Expenditure on R & D and Advertisement by Hindustan Lever in relation to total turnover

(Amounts in Rs. Lakhs)

Year	Turnover	Revenue Expenditure		Expenditure as % of turnover	
		R & D	Advertising as sales promotion	R & D	Advt.
(1)	(2)	(3)	(4)	(5)	(6)
1965	7148	18	104	0·25	1·45
1966	8467	24	96	0·30	1·13
1967	9328	31	94	0·34	1·01
1968	9259	44	119	0·47	1·28
1969	10879	55	176	0·51	1·62

TABLE 12—*Contd.*

(1)	(2)	(3)	(4)	(5)	(6)
1970	11921	64	194	0·54	1·63
1971	13410	72	211	0·54	1·57
1972	14044	79	219	0.56	1·56

Source : The Applicant Company.
Report and Accounts of the Company.

6·04 Another important point in this connection is that the applicant Company apparently places more importance on sales promotion as a method of increasing its sales than on reduction in prices. This is in keeping with the behaviour of producers operating under conditions of monopolistic competition, where non-price competition is always found by producers to be far more profitable than price competition. The ethics as well as the balance of social advantage in a poor economy would however suggest that this is not very desirable. In spite of the substantial increase in production in the last few years, a significant part of it obtained only with marginal additions to plant and labour there has not only been no price reduction in the NSD sold by the applicant Company but there has actually been a price increase shortly following the approval by Government of a doubling of its production capacity. These are pointers to indicate that the predominant position held by the applicant Company in the field of NSD cannot be said to have been of significant advantage to the common consumer in India. This past record cannot but raise doubts about the possible future effect of the applicant company's predominance in the production of NSD and its competitive strength being enhanced as a result of it being able to obtain 46 per cent of its raw materials from captive sources. The Company's record does not show that such a development would lead to any significant benefit to the consumer.

Unilever's Contribution to Project

6·05 An important point to note regarding the present proposal is that the applicant Company and its parent company would make little contribution to it. Nowhere in the world in Unilever producing phosphates, including STPP. In spite of its being one of the largest NSD producers in the world, nowhere has it undertaken the production of STPP, even though STPP constitutes even a larger proportion of NSD in countries like the USA. There is no technical know-how that either Unilever or Hindustan Lever will be able to contribute to the new project. The know-how will have to be obtained from other sources—probably foreign. The representatives of the applicant Company have stated that they would be quite willing to obtain know-how from Indian sources if they are confident about the know-how being the best one available and if the terms are satisfactory. It does not seem as if these two conditions will be satisfied. Albright Morarji & Pandit have indicated their willingness to make the know-how available to parties wanting to produce STPP and related products, but they have laid down an exception in the case of producers of NSD on the plea that such vertical integration would be against their own interest and the interest of the industry. Know-how which the DCM claims to have developed is still to be used on a commercial scale and, until DCM proves it through its own unit, it may not be able to sell it to other parties. The conclusion is thus inescapable that, if Hindustan Lever is to undertake this project, know-how will have to be specially obtained from foreign sources on payment.

6·06 Not only will the parent company or Hindustan Lever not contribute any technical know-how to the proposed project but they are also not expected to provide any finance. After all, this is said to be one of the main attractions of the scheme—that the proportion of foreign equity in Hindustan Lever will be diluted as a result of its being permitted to take up this project, finance for it being found from Indian sources. We shall examine this problem in detail a little later. The point to be emphasised here is that Unilever even after the proposed dilution will continue to be the largest shareholder in Hindustan Lever, retaining about 70% of equity and it will make no contribution to this project either by way of technical know-how or by way of finance. When a question was raised at the Public Hearing as to why Hindustan Lever should be granted permission to set up this project as their parent company would contribute neither technical know-how nor finance for the project, the answer was that they have a good management and this is not an unimportant factor in the development of a new project.

Vertical integration

6·07 One of the main points that have come up in the discussion about the present proposal is that it involves backward vertical integration by a producer of NSD. On this ground a number of objections have been raised, both by producers of NSD and by producers—present and prospective—of STPP. On the general issue of vertical integration, the representatives of the applicant Company made the point at the Public Hearing that vertical integration cannot always be considered undesirable. There are a number of instances where vertical integration is not only permitted but encouraged. This is obvious, the most prominent example being matallurgical industries like iron and steel or aluminium, and also certain chemical complexes. The reason in such cases mostly is that considerable technical and process economies are attained by the output of one process being immediately available as input for the next process in the series, as significant costs by way of fuel or transport are avoided by such process continuity. Where such advantages do not exist, and especially where output of one process is to form the raw material for another process which can usually be undertaken on a different scale, vertical integration is not necessary. Where the two processes belong entirely to different technical categories, the enterpreneurs themselves usually avoid getting involved in such vertical integration. As we have already indicated, Albright Wilson, one of the leading producers of STPP and other phosphates, has not entered the production of NSD; and on the other hand, Unilever has not entered the production of STPP. There are few examples in the world of NSD producers entering the production of phosphates and STPP, the main reason being that NSD is a consumer product and the orientation of the NSD producer is usually quite different from the orientation of the producer of STPP and other phosphates, the latter belonging to the basic chemical industry.

6·08 As we have already pointed out earlier, while the consumption of NSD has not up to now given rise to any significant environmental problems, it would not be wise to wait till such problems arise through the widespread use of NSD in the country. It would be far better to anticipate problems and try to take some steps from now on to avoid future complications. As the main guilty factor responsible for adverse environmental effects arising from NSD is STPP, it is necessary that the producer of NSD should feel free to exploit the possibility of reducing the percentage of STPP in NSD, and, if possible, even to eleminate it by looking out for substitutes.* In the Indian context this would also be important for the purpose of import substitution as there seems to be little prospect of finding adequate indigenous sources of rock phosphate or sulphur, the two main constituents of STPP production. However, if a manufacturer of NSD is himself involved in the production of STPP, he would be reluctant to make such explorations and to effect a change. His own investment would be in jeopardy if this happens. Not only would he not explore the possibility of reducing or eliminating the use of STPP but such influence as he can command may also be exerted against any such effort. This is an important reason why vertical integration in this particular case needs to be avoided.

Objections by NSD Producers

6·09 While one major producer of NSD, TOMCO, did not raise any objection to the present proposal, the other major producer, Swastik, pointed out that if the proposal is approved, Hindustan Lever will be able to obtain from its captive plant the supply of STPP and oleum which constitute 30 per cent and 16 per cent of the weight and 37·5 per cent and 2·5 per cent of the value of NSD respectively. Such a position "will further enhance their dominance on the synthetic detergent industry in the country and will affect adversely the operations of other synthetic detergent manufacturers like us". Their suggestion was that "a captive consumer" should not have a licence for manufacture of its own major raw materials.

6·10 On behalf of the small scale producers of NSD, the Federation of Associations of Small Scale Industries of India have raised a similar objection pointing that permitting such a captive source of important raw materials would give Hindustan Lever " a tremendous cost advantage over small scale detergent manufacturers". An important point made by it was that, with increasing difficulties of availability of oils and fats, a number of small soap manufacturers are being compelled to switch over to the production of NSD. "They have to stand in competition against well established brands of big manufacturers and if at this stage, the biggest among them, i.e. Hindustan Lever gets 45 per cent raw material at cost price, this will not only increase Hindustan Lever's competitive strength *vis-a-vis* other big detergent manufacturers, but more than that threaten the entry, survival and growth of small scale detergent manufacturers". It was pointed out that a small scale NSD producer already faces the handicap that,as his purchases of raw materials are in small quantities, he gets them at prices higher than those paid by bulk consumers like large NSD manufacturers. The advantage of the large producer would be heightened if he is also permitted to have a captive source of a major part of the raw materials. The small producers are also handicapped *vis-a-vis* the large ones like Hindustan Lever because they cannot match the publicity and advertisement campaign of these companies, making their position more difficult. It was represented that approval of the present proposal would defeat the Government's policy of encouraging the growth of technician-entrepreneurs through the development of small scale industries. This plea was reiterated by a number of small scale NSD producers who wrote to the Commission, and re-emphasised by some representatives who attended the Public Hearing. When it was put to them at the Public Hearing whether larger supply of STPP would not improve their position in the market, it was stated on their behalf that this would be so but not if the supply is going to be increased by the entry of a large NSD producer like Hindustan Lever.

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*It has sometimes been said that if phosphatic fertilisers are going to be increasingly used, why should be object to the use of STPP in NSD? The point is that washing powders will immediately and rapidly enter stagnant waters and create "eutrophication", phosphates in fertilisers will, properly applied, not enter water streams directly and fully. Moreover, surely the importance of fertilisers for agriculture and that of STPP for washing clothes cannot be claimed to be of equally high priority from the social point of view. Risks may be taken in the interest of society in the former case which may not be justified in the latter.

6·11 The other source from which this objection was raised was the existing and prospective producers of STPP and related products. Albright Morarji & Pandit have pointed out that the present position is that no other manufacturer of NSD is producing, or has so far been licensed to produce, STPP. If Hindustan Lever's application is approved, it will have a stronger grip on the NSD market in two ways :

> "(i) by having a captive undertaking for producing STPP and Oleum which are essential ingredients for NSD; and
>
> (ii) by being inevitably "entitled" to demand, in due course, a licence to expand their NSD capacity from 46,000 tonnes (at present) to 1,00,000 as soon as captive undertaking is set up."

AMP have not explained whether and how the second effect is unavoidable. This would be so only if NSD capacity does not come up as expected, and Hindustan Lever can show that they cannot market the STPP that they would produce. In such a scase, the Government may consider a demand by Hindustan Lever for enhancing their NSD capacity as reasonable. It has already been pointed out earlier that the approval of the present proposal can itself have the effect of discouraging new NSD units from coming up because of their fear of the enhanced competitive strength of Hindustan Lever.

6·12 The DCM, a prospective producer of STPP, has also pointed out that "permitting this Company the raw materials required for this (synthetic detergent) would only perpetuate their control and dominance in a very vital consumer product area." The DCM also pointed out that it was not in the NSD business but was only making washing soap; but it had applied for the manufacture of NSD. When the representative of DCM was questioned at the Public Hearing regarding this matter, he emphasised the importance of encouraging their proposed project for the production of STPP because it was based on fully Indian know-how and because it was by a 100% Indian company, and did not lay stress on the question of vertical integration.

6·13 Travancore Titanium, a public sector undertaking and another intending producer of STPP, objected to the approval of the Hindustan Lever's proposal mainly on the ground that it may face difficulty in marketing its production of STPP if the application of Hindustan Lever, a major consumer of STPP, is granted.

6·14 These objections are of much substance. As we have already indicated earlier genuine fear can be entertained by prospective producers of STPP that Hindustan Lever's entry into the field might create unfavourable market conditions for them. It may also affect the STPP market adversely by discouraging the entry of new NSD units in the industry. The development of a vertically integrated unit for the production of STPP needs therefore to be avoided.

Possible Safeguards

6·15 It was suggested at the Public Hearing, and agreed to by the applicant Company, that reasonable safeguards may be introduced to protect the other NSD producers and specially the small ones, from the possible adverse effects that may arise because of Hindustan Lever's setting up a captive source for STPP and Oleum. It was suggested, for example, that in order to ensure that a certain quantity of STPP is always available to the small scale producer of NSD, a condition may be imposed that a certain proportion of Hindustan Lever's proposed output of STPP should be earmarked for small scale NSD units and distributed according to Government directives. Such a condition, while it may operate usefully for short periods of acute scarcity, will not be of practical use as a long term measure. If the Government insists upon a certain proportion of the proposed production of STPP being reserved for distribution to small scale units, it will also have to guarantee the off-take of the prescribed quantity. In conditions of scaracity, there would be no difficulty about carrying out this undertaking. On the other hand, if there is even a short period of glut, the Government may find it difficult to ensure that the prescribed proportion of output is actually taken up by small scale NSD units. The STPP producer would then be within his rights to insist that there cannot be such a one-sided condition, *viz.*, that he must reserve a certain proportion of output for distribution among small producers, but that no one is responsible to ensure that the prescribed quantity is actually sold. As mentioned earlier the condition of glut is much more likely to lead to Hindustan Lever being permitted to enhance its own NSD capacity so as to avoid wasting the STPP capacity which it would create under this proposal. If there is a general shortage of STPP, on the other hand, the condition regarding a certain proportion being reserved for small scale producers will have to be imposed not only on Hindustan Lever but also on all producers of STPP. This would therefore be no special obligation on Hindustan Lever.

6·16 As regards the price advantage that Hindustan Lever is likely to get by having a captive source for two important raw materials constituting 46% in terms of weight and 40% in terms of value of NSD, it has sometimes been suggested that care can be taken to ensure that Hindustan Lever charges itself a price for STPP and oleum equal to what it charges its outside customers, the other manufacturers of NSD. Hindustan Lever indicated at the Public Hearing that it would have no objection to such a condition. It should not be over-looked in this context that there are many difficulties in the way of ensuring that the actual cost from captive use of these materials to Hindustan Lever would be the same as the cost that would have to be incurred by its competitors. In any integrated and complex undertaking, the allocation of costs common to various units always poses problems and it is not easy to ensure that the costs of certain services and personnel common to Hindustan Lever as a whole are not disproportionately assigned to the STPP Project. However, if the price to be charged to other customers and the internal price to be used for captive consumption are to be determined by an outside agency like the Bureau of Costs, it would be difficult not to impose a similar cost check and price control on other producers of STPP. Whether it is desirable that STPP should be brought under general price control of this kind is a debatable question. In any case, there is no reason why such out-of-the-way measures should be thought of when the straightforward answer to all these objections is not to permit vertical integration in such an industry.

General Approach to Vertical Integration

6·17 As some representatives of small scale producers pointed out at the Public Hearing, the country has had some experience regarding permitting large producers to undertake captive production of certain items not only to satisfy their own demand but also to make the supplies of these items available to their small scale competitors. The experience in such cases has been usually adverse from the point of small scale units. The quality, regularity and pricing of supplies inevitably tends to be manipulated to the disadvantage of the smaller competitors. This is very natural in conditions of a competitive market, and to expect that a large producer would be ready to operate with fairness to enhance the competitive capacity of his own rivals is to expect a very uneconomic attitude and behaviour on his part. Imposition of such conditions and reliance on such an expectation of unnatural behaviour should therefore be avoided if it is possible to do so. In this particular case, it does not appear as if the entry of Hindustan Lever in this line of production is one which cannot be avoided. It would therefore be far better not to approve the proposal rather than approve it and then try to avoid its mal-effects by imposing conditions impossible or difficult to enforce.

6·18 It may be said that in many instances where a major raw materials is used by several competing manufacturers the Government has usually refrained from permitting one of the producers from undertaking the production of the raw material so as to avoid creating a handicap for the other producers in that line. It may be observed that the manufacture of DMT has not been permitted to any manufacturers of polyster fibre; similarly manufacture of caprolactum has not been permitted to any of the nylon manufacturers. Even regarding DDB, one of the important constituents of NSD, the Government decided not to permit even a consortium of NSD manufacturers to go ahead with their proposed project for the production of DDB; the Government has decided to set up a plant for producing DDB in the public sector. This will make for equal availability of this raw material to all the NSD manufacturers. It is apparent that this is an important aspect of industrial licensing policy which should not be lost sight of when examining the present proposal.

6·19 The question whether the Government had considered the vertical integration aspect of this proposal and whether it had been decided that there would be no objection to a manufacturer of NSD producing one of the essential raw materials was posed by the Commission to the Government. It was specifically pointed out there that, in the past, no licence for STPP had been issued to any manufacturer of NSD. The answer given by the Government was that the question whether a manufacturer of NSD should be licensed for the manufacture of STPP—whether there was a policy of this kind in the past—was not clear, and the Government was still checking up the matter. In the case of Hindustan Lever, the Ministry of Industrial Development had recommended the application for the production of STPP etc. "as they (Hindustan Lever) had offered to dilute the foreign equity in their company in case they were allowed to manufacture STPP for captive consumption for the manufacture of synthetic detergents."* It is, therefore, to be noted that the Government has still to apply its mind to the problem whether vertical integration in this industry would be desirable or not. The only ground on which certain departments in Government have supported the present proposal appears to be that Hindustan Lever has agreed to dilute its foreign equity in the process of finding finance for the present proposal.

A Possible Way Out

6·20 Perhaps, if the proposed project is undertaken not by Hindustan Lever but by a new company, which is set up in association with Hindustan Lever and with its participation in equity capital, there may be less objection to such a proposal on the ground of vertical integration. If Hindustan Lever's equity participation in such a company is limited to a small proportion not exceeding 1/4th, there would be little possibility of any special favours being conferred on Hindustan Lever as a consumer of STPP. Enforcing the condition that the same price should be charged would become easier and the possibility that certain other indirect advantages may be obtained by Hindustan Lever would be minimised. This approach would also enable Hindustan Lever to make the only contribution it can possibly make to setting up of the new undertaking, namely, provide the initial support and contribute to building up a good management from the initial stages of the project. It is not certain whether the applicant Company will agree to such an approach. This can however be an alternative to be explored if it is decided that, while it would be undesirable to permit the proposal in the present form, a project of the type envisaged and located at Haldia should come up in the interest of the NSD industry and to help the economic development of Midnapore District and the State of West Bengal.

Core Sector

6·21 When the question was put to Hindustan Lever at the Public Hearing that what was being proposed was a kind of vertical integration which had not been attempted by their parent company at all, the answer was that this was being done in accordance with the recent Government policy. It was stated that Government itself wanted Larger Houses and Foreign Companies to help the expansion of industries in the core sector. Basic chemicals like Phosphates being in the core sector, it was considered appropriate that Hindustan Lever should attempt to develop that industry. We need not go into the general question here about what advantages the country would obtain by such companies entering new lines of production in the core sector. What needs to be pointed out is that entry into the core sector does not necessarily mean the production of industrial phosphates and especially STPP which involves vertical integration resulting in a possible disadvantage to other producers of NSD. NSD itself is now included in the core sector, and thus Hindustan Lever is already operating in the core sector. It should also be noted that Hindustan Lever's earlier idea was to enter the core sector by setting up a fertiliser unit jointly with the State Government of Punjab. This project was however abandoned essentially because it was found that it would not be profitable for the Company†. What the Company therefore is looking for is an additional opening in the core sector which would also be substantially profitable. There is nothing wrong with this; but it cannot be pleaded that this is being done just to follow the new policy of Government.

A large New Avenue of Growth for HL

6·22 At the Public Hearing, a further question was posed to the representatives of the Company. "Following the new approach of Government, if the Company wishes to enter the production of basic chemicals, would it think of gradually withdrawing from the production of consumer goods", the Company was asked, "Or was it the idea that the Company would grow in the production of consumer goods as well as in the production of basic chemicals?" The answer was clear. The Company was thinking of growth and not of decline. It expected to make headway both in the field of basic chemicals and in the field of consumer goods in which it already had a good position.

6·23 This is a fair enough answer; but its implications should be clearly realised. The setting up of a unit for the production of STPP and other phosphates can only be the beginning of further development into the production of basic chemicals. Moreover, even if the capacity for producing STPP is put at 30,000 tonnes per annum in the present phase of the project, it cannot be confined to that figure for all times to come. Growth in size is the natural law of an industry. Industry either grows or decays. It cannot stand still. Permission to set up the proposed new unit will therefore only be the beginning of Hindustan Lever's entry into an entirely new line in the country's economy—that of basic chemicals. It will do this without its parent company having any expertise in this line. Normally the entry of a foreign company or an Indian company with a large foreign equity is permitted in an industry because it is expected that the technical know-how with the foreign company would thus become available for the development of the Indian industry and the continuing—usually massive—R & D effort of the parent company will be of assistance to the Indian company in maintaining its technology up-to-date. No such advantage will be available regarding the entry of Hindustan Lever in the basic chemicals field. A company which would continue to be foreign controlled but whose foreign parent would have no technical contribution to make in the new line would thus be permitted to develop in an entirely new area of production. This implication of the present proposal is of great importance in considering it.

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*D.O. No. 2(27)/72-LI (II) dt. 4-8-1972 from Shri C. Balasubramaniam, Joint Secretary, Ministry of Industrial Development, Government of India.

†Letter dated May 12, 1972, from Hindustan Lever to the Chairman, Punjab State Industrial Development Corporation, Chandigarh, furnished to the Commission by applicant Company *vide* its letter dated July 14, 1973.

Dilution of Equity—a Basis for Approval?

6·24 As mentioned earlier, the main reason why some agencies in Government appear to support the present proposal is that the applicant company has offered to dilute its foreign equity as a part of financing this development. It needs to be noted in this connection that it has nowhere been stated that dilution of foreign equity is by itself an important objective to be aimed at and that projects of companies are to be approved only or mainly for the reason that this would help dilution of their foreign equity. The Government approach in this matter is quite different. If a particular expansion proposal is desirable in terms of other policies of Government and to fulfil Plan objectives, the method of financing has to be such as would help bring about dilution of foreign equity. The guidelines laid down by the Ministry of Finance are meant to be used in such an eventuality. To say that the project should be approved essentially because it is leading to dilution of foreign equity is to take a topsy-turvy view of this policy.

Effect of HL's Operations on Foreign Remittances

6·25 In this connection, it should be noted that Hindustan Lever has been operating in India for a long time and, as a result, it has paid back to its principals, through remittances of dividends, their original contribution many times over. Unilever's actual cash contribution to the creation of assets in Hindustan Lever is limited to about Rs. 272 lakhs (see Table 13). On this, through capitalisation of reserves, it has obtained bonus shares of the face value of Rs. 1,012 lakhs. The total dividend remitted abroad up to the year of 1972 (*after* deduction of tax at source) is Rs. 1,488 lakhs. One can thus see how profitable the investment has been to Unilever.

Dilution Not to Reduce Remittances

6·26 Regarding the proposed dilution, an important point to be noted is that even if all the present proposals of Hindustan Lever for new projects are accepted by Government—and this would mean a very large increase in their dominance in the NSD industry and also entry into some new lines of industry—equity controlled by Unilever would only decline from the present 85 per cent to 68 per cent. The implication of this is that control over Hindustan Lever would firmly rest in the hands of the foreign shareholder. As there is no proposal that the shares to be sold in India should be offered in the first instance to public financial institutions etc., there would be no countervailing power which would in any sense challenge the position of Unilever as the dominant shareholder of Hindustan Lever. Thus the concentration of economic power in the hands of the foreign shareholder will not only not decline but actually increase with the growth in the capital assets of the Company as a result of the new projects, and this enhancement will take place without the foreign controlling agency making any financial and, in this project, technical contribution to the growth of the Company.

TABLE 13

Mode of allotment of Share Capital of Hindustan Lever Limited

(Value in Rs. Lakhs)

	Indian Shareholders	Unilever U.K.	Total
A. *Position prior to October,* 1956			
(i) Shares allotted for cash	..	24·00	24·00
(ii) Shares allotted for considerations other than cash :			
(a) for transfer of assets	..	200·00	200·00
(b) for transfer of business including goodwill and trade marks .	..	4·00	4·00

TABLE 13—*Contd.*

(Value in Rs. Lakhs)

	Indian Shareholders	Unilever U.K.	Total
(iii) Bonus Shares issued from time to time	..	329·00	329·00
(iv) Total Share Capital	..	557·00	557·00
B. *Position after 27th October*, 1956			
(i) Shares sold to Indians (at a premium of Rs. 650 per share of Rs. 10)	55·70—	55·70	..
(ii) Issue of Rights Shares (at a premium of Rs. 8/- per share)	55·70	44·44	100·14
(iii) Bonus Shares issued from time to time (after 1956)	104·44	682·96	787·40
(iv) Total Share capital as at end of 1972	215·84	1228·70	1444·54
C. *Premium paid on shares*			
(i) Initial issue to Indians in 1956	36·20—	36·20	..
(ii) Rights issue in 1965	44·56	35·56	80·12
D. *Total payments (cash or kind) for shares*			
(i) Shares issued for cash	111·40	68·44	179·84
(ii) Shares issued for other considerations	..	204·00	204·00
(iii) Premium paid on shares	80·76(—)	0·64	80·12
Total of (D)	192·16	271·80	463·96
E. *Bonus Shares upto end of* 1972	104·44	1011·96	1116·40

Source : Information derived from replies given by the applicant Company.

6·27 It is not necessary for the present purpose generally to examine what exactly would be achieved by bringing about the dilution of foreign equity along the lines envisaged in the guidelines laid down by the Central Government in this respect. What needs to be clearly pointed out, however, as far as the present proposal is concerned, is that if the guidelines are followed there would be merely a certain reduction in the proportion of foreign equity—from 85% to about 75%. Even under the proposal now agreed to by the applicant Company, the foreign-held equity will decline to 70%. This would not only bring about no reduction in the degree of control exercised by the foreign equity-holder over the concern but it will also not lead to any long-term saving in terms of foreign exchange payments. An analysis of the dividends remitted to Unilever in the last five years and the remittances that would be sent to Unilever in the next five years is given in *Table* 14.

6·28 The data about total dividends are based on the projections furnished by the applicant Company. Alternative sets of figures have been worked out on the assumption that Unilever's equity-holdings continue to be 85%, will be reduced to 75%, or to 70%. The data show that the total dividend is expected to increase substantially, from Rs. 231 lakhs in 1972 (actuals) to Rs. 403 lakhs in 1978 (projected). The dividend after tax remitted to Unilever which was Rs. 146 lakhs in 1972 will increase to Rs. 152 lakhs in 1973, even if by that time the equity held by Unilever is reduced to 75% following the dilution as indicated in the Government guidelines. On this assumption, the remittance to Unilever will reach Rs. 226 lakhs by 1978. Even if Hindustan Lever's equity is diluted somewhat more as has now been agreed to by the applicant Company and reduced to 70%, the remittance to Unilever will decline only to Rs. 142 lakhs in 1973 and 1974, and again go on increasing till it reaches Rs. 212 lakhs by 1978. It should be remembered in this connection that the benefits from the proposed new investment in the industrial phosphates plant will not begin to flow till 1978. They will commence only after that year when the proposed project goes into full scale production. The analysis of data supplied by the applicant Company regarding the likely generation of profit from the STPP project by 1979 indicates that, on an investment of Rs. ten crores, the profits before tax would amount to Rs. 172 lakhs, and profits after tax would be Rs. 69 lakhs on an assumption of a 60% tax rate. The share of Unilever, if their equity is reduced to 70%, would be Rs. 48 lakhs. The foreign remittance out of this would be Rs. 36 lakhs. *This additional benefit would accrue to Unilever without their making any contribution by way of finance or technical know-how to the new project.* One wonders therefore how exactly the dilution of equity through permitting expansion of the Company is supposed to be of benefit to the Indian economy. The only plausible ground to suggest that some benefit will accrue to the Indian economy is to assume that, even if such dilution was not brought about, the company would have still been permitted to grow in size in the various lines now under consideration and that therefore, by limiting the foreign equity in the growing concern, the *increaee* in remittances would be limited. No such assumption is warranted either in terms of national policy or in terms of the MRTP Act.

TABLE 14

Dividends to Unilever — past and projected

(Rs. lakhs)

	Total Dividends	Dividends to Unilever					
		Present Position		After dilution of foreign shareholdings			
		Gross Dividends	Dividends after tax	To 75%		To 70%	
		(Gross)	(Net)	(Gross)	(Net)	(Gross)	(Net)
Actuals							
1968	162	138	104				
1969	185	157	119				
1970	202	172	130				
1971	217	184	138				
1972	231	196	146				
Projected							
1973	270	230	172	202	152	189	142
1974	270	230	172	202	152	189	142
1975	310	264	198	232	174	217	163
1976	382	325	244	286	214	267	200
1977	403	343	257	302	226	282	212
1978	408	343	257	302	226	282	212
1973 to 77	1635	1392	1043	1224	918	1144	859
1973 to 78	2038	1735	1300	1526	1144	1426	1071

NOTE:— (i) Tax on dividends has been assumed at 25% of gross dividends.

(ii) Projections of dividends have been furnished by the applicant Company. These projections taken into account besides STPP project other expansion Schemes of the Company.

CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

Lessons from Past History

7·01 The brief history of the development of the synthetic detergents industry and the industrial phosphates industry with reference to STPP which we have traced in the earlier chapters of this Dissenting Report, is meant to indicate how, as a result of the varying approach of Licensing authorities, small entrepreneurs and hundred per cent Indian owned concerns have been handicapped as compared to large companies and foreign subsidiaries in these lines. It is not necessary for our purpose to go into the reasons behind this.* It was necessasy, however, to provide this information to point to the danger—as clearly indicated by this past history—of the tendency to ignore the genuine interests of the smaller entrepreneurs and the Indian concerns by going out of the way to find ways of assisting larger companies and foreign subsidiaries. This warning is surely relevant in the consideration of this particular proposal. It is also of relevance in the overall context of the objectives in the pursuit of which the MRTP Act has been passed.

Demand and Supply

7·02 Our analysis of demand and supply leads us to conclude that there can be significant doubts regarding whether the country would need a capacity to produce 355,000 tonnes of NSD by 1978-79 and, even more, whether such capacity would actually be created by that time. As the demand for STPP is a derived demand, it is very doubtful whether it would at all be necessary to ensure that capacity for the production of 1,06,500 tonnes of STPP needs to be created by that year. It is further observed that, on present indications, it appears probable that a capacity of 1,00,000 tonnes per annum of STPP will be set up by 1978-79 by the public sector undertakings which have firmly indicated their intention to enter into this line and two private concerns which appear to be considerably advanced in their work relating to their STPP projects, *viz.* Ballarpur Paper and DCM. This is in addition to the capacity for producing 25,000 tonnes per annum of Albright Morarjee which would be in existence by early 1974. If further expansion of Albright Morarji can be permitted, this will add an additional 25,000 tonnes to the potential capacity that can be created by 1978-79. If albright Morarji genuinely show readiness to reduce foreign equity from the present 46 per cent as they indicated at the public hearing of this case, their proposal would be less objectionable than the present one, mainly because no further payments for foreign know-how would be involved and substantial economies of scale would be available as a result of such expansion. The possible misuse of their dominant position by Albright Morarji can be taken care of under the MRTP Act, and this would be much easier as this concern is not involved in the production of NSD directly or indirectly. It also appears possible to activise the licenced capacity of Star Chemicals if the difficulty about its sulphuric acid plant can be sorted out. Further, there are two other applicants—both belonging to larger houses but fully Indian owned—whose proposals are under consideration for production of STPP. It can therefore be said without any hesitation that there is no necessity to approve the present proposal of Hindustan Lever for the purpose of satisfying the requirements of STPP that would arise in the country by 1978-79.

7·03 In this context the dynamics of the demand and supply situation cannot be ignored. If the present proposal of Hindustan Lever is approved, that itself can have peculiar effects on the demand and supply situation regarding both NSD and STPP. Because of the apprehension that many small NSD producers—present and potential—entertain regarding the accretion to what they definitely think to be Hindustan Lever's competitive strength as a result of its being permitted to set up the production of STPP and oleum from a captive source, such permission may itself adversely affect the setting up of NSD capacity by smaller units. If the Government in such a case wants to ensure that NSD capacity is created to the required extent, a further addition to the NSD capacity of Hindustan Lever may become necessary, which would worsen the situation as far as the smaller and Indian NSD producers are concerned. Another aspect of the situation is that, if the capacity for NSD does not increase to the extent envisaged, Hindustan Lever would have good grounds to ask for more NSD capacity to ensure fuller utilisation of its STPP plant.

**cf.* "Short term balance of payment considerations were allowed in many cases to outweigh the long-term impact on import substitution and self-reliance. Foreign or foreign associated concerns were permitted to establish capacities in industries where and when they had no special contribution to make, to the disadvantage of indigenous manufacture and technical know-how". This was one of the conclusions of the Industrial Licensing Inquiry (Dutt) Committee 1969. See main Report p. 184.

7·04 Another dynamic aspect of the present proposal would be that some of the intending STPP producers—hundred per cent Indian concerns—may become apprehensive that their potential market for STPP would be adversely affected as a result of a major consumer of STPP developing a captive source for that item. Some of them would therefore decide against entering the field, or go slow in implementing their projects. Thus the balance of demand and supply regarding NSD and STPP cannot be considered as remaining unaffected by the decision regarding the present proposal. The approval or otherwise of this proposal is itself likely to have a significant impact on the balance.

Section 28 of the MRTP Act

7·05 In view of what has been stated above, it should be clear that the guideline indicated by Section 28(a), viz. "to achieve the production, supply and distribution, by most efficient and economical means, of goods of such types and qualities, in such volume and at such prices as will best meet the requirements of the defence of India, and home and overseas markets", cannot be considered as supporting the present proposal. What is likely to happen is that while Hindustan Lever's own production of both NSD and STPP may increase, production of these from other sources may not increase as expected. This will be due to the fact that new enterprises intending to enter the production of NSD will be discouraged from doing so.

7·06 Hindustan Lever's entry into the production of STPP may also provide a setback to the efforts of certain public undertakings to enter this line of production. Approval of this proposal would thus directly go against the guideline indicated in section 28(e) viz., "to encourage new enterprises as a countervailing force to the concentration of economic power to the common detriment". To reiterate, by promoting a world predominant producer of NSD to create a captive source for a substantial part of the required raw materials (46 per cent in terms of weight and 40 per cent in terms of value), the position of all genuinely Indian producers of NSD, and especially of the many new licensees who have been granted capacities only of 10,000 tonnes each per annum, will be greatly jeopardised. It would also make it difficult for public undertakings like Travencore Titanium and Hindustan Copper to develop the production of STPP, a development which would effectively act as a countervailing force to the concentration of economic power in private hands.

7·07 Our discussion of the vertical integration aspect of the present proposal suggests that such backward vertical integration between production of NSD and production of STPP will not lead to any economies in production while, at the same time, it may create handicaps in the way of other producers of NSD and worsen their competitive position. This will thus discourage the smaller and newer enterprises and go against the guideline indicated by Section 28(e).

7·08 Delhi Cloth Mills has claimed that it has developed a genuinely Indian process for the production of STPP. The Fertiliser Corporation of India has indicated that it is also on the way to developing such a process.* The representative of Travancore Titanium said at the public hearing that they propose to develop production of STPP on the basis of Indian technical know-how. Any act which would discourage the development of STPP by DCM or Travancore Titanium or to slow it down will certainly go against another guideline indicated in Section 28(d), viz., "to effect technical and technological improvements in trade......", if this is taken to imply that development of Indian technical know-how is specially to be encouraged. It is true that Hindustan Lever has agreed to use Indian technical know-how if it is satisfied that it is technologically the best available, and if the terms are satisfactory. From all accounts, however, Hindustan Lever is expecting to obtain technical know-how from abroad.

7·09 The only point in favour of the present proposal would be in terms of clause (g) of Sec. 28, viz., "to reduce disparities in development between different regions and more especially in relation to areas which have remained markedly backward". It should be noted in this connection, firstly, that the State of West Bengal cannot be considered to be a region "which has remained markedly backward". Though the district of Midnapur is marked as a backward district, Haldia itself is a well developed port town. If approval of the present proposal adversely affects the development of the proposed STPP Plants of Travancore Titanium or Hindustan Copper, development of industry in far more backward regions—the States of Kerala and Rajasthan—would be adversely affected. Moreover, as our analysis shows, the net effect of the proposed plant on the creation of employment is likely to be quite small. The claim made that employment will largely increase as a result of setting up of NSD plants in West Bengal based on STPP production at Haldia has been shown to be unfounded. The setting up of NSD plants in West Bengal is not a proposal necessarily dependant upon the setting up of a STPP plant at Haldia or anywhere else in West Bengal. It cannot therefore be said that the proposal can be supported specifically on this ground.

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*Letter No. DPJ. 4407 dt. Jul. 13, 16, 1973 from the Fertiliser Corporation of India.

The Purpose of the Act

7.10 The Monopolies and Restrictive Trade Practices Act has been enacted to ensure that "the operation of the economic system does not result in concentration of economic power to the common detriment", and "for the control of monopolies....". Hindustan Lever represents not only concentration of economic power, but such concentration is under foreign domination. Can it be anybody's contention that such concentration is not "to the common detriment" of India? Even taking into account the dilution of foreign equity from 85 per cent to 70 per cent as agreed to by the applicant Company, can it be said that the concentration of economic power to the common detriment is in any sense significantly offset by this dilution? Does not control over the Company continue to remain firmly in foreign hands, and is it not true that the control would be over a larger quantity of capital assets, and even foreign remittances would not decline but continue to increase? Can it also be forgotten that Hindustan Lever is in a predominant and monopolistic position in the production of NSD, It holds this position against genuinely Indian producers, and many of the intending small producers of NSD are apprehensive about how they would be able to fare in competition with Hindustan Lever. They are genuinely afraid that approval of the present proposal would add substantially to the competitive strength of Hindustan Lever and would be to their serious disadvantage. Our analysis of the problem indicates that these fears have much substance in them. By approving this proposal, shall we not favour the growth of monopolies rather than bring the existing monopolies under effective control? In effect, in case this proposal is approved, is it not obvious that the purpose of the MRTP Act and the objectives with which it was enacted will not be furthered?

7·11 Taking all these considerations into account, my recommendation is that the present proposal should not be approved.

A Modified Proposal?

7.12 Even if the Government comes to the conclusion that, in order to satisfy the expected demand for STPP and in order to encourage the economic development of the district of Midnapure and the State of West Bengal, the location of a project for the production of STPP and other related materials at Haldia of the proposaed size is unavoidable, it is necessary that care should be taken to eliminate the two principal objections to the present proposal, *viz.*, that it creates a vertically integrated captive plant for supplying a major part of the raw materials to an already predominant NSD producer; and that this addition to concentration of economic power and monopoly power will be to the advantage of a company which will continue to be one with a large majority of equity capital owned by a foreign shareholder. Both these serious objections to the present proposal can be eliminated if the propesal is implemented through a new company which may be set up in association with Hindustan Lever. Hindustan Lever may be permitted to contribute not more than 25% of the equity capital of the proposed company, at least 26% being contributed by the State Government of West Bengal and public financial institutions. The remaining capital should be contributed by the general public. This would enable the new company to obtain in its initial stages Hindustan Lever's assistance in building up a competent management which is the only substantive contribution that Hindustan Lever can make to the present project with Hindustan Lever holding only a minority share which will be counterbalanced by the shareholdings of public financial institutions and the State Government, there would be less likelihood of Hindustan Lever as a consumer of STPP obtaining special favours at the hands of the new company.

7·13 Rs. five crores out of the required investment of Rs. ten crores for the new project may be obtained by the issue of equity capital. Rs. 1·25 crores, which would be contributed by Hindustan Lever as equity for the new company, may be raised by it through the issue of new equity to the Indian public. Thus some dilution in Hindustan Lever's equity would be brought about and, at the same time, in the new company Hindustan Lever would remain only a minority shareholder. While such a proposal can meet the objections that have been raised to the proposal, specially from the small scale producers of NSD, one does not know whether Hindustan Lever would agree to it. It is clear in my view that, except on such a changed basis, it would be inadvisable to permit the proposal.

7.14 To summarise, my recommendations are—

(i) The proposal in its present form should not be approved.

(ii) The possibility of a Chemical Unit of the proposed size and product-mix being set up at Haldia through a new company may be explored. In the equity of the new company, Hindustan Lever may contribute not more than 25% and the State Government of West Bengal and public financial institutions not less than 26%; and the rest may be kept open for public subscription.

(Sd.)

(H.K. PARANJAPE)

NEW DELHI
Dated 20*th September*, 1973.

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ANNEXURE I

Comparative chart showing applications for the manufacture of Non-Soapy Detergents by the major producers

	Year	Hindustan Lever	Tata Oils Mills Company	Swastik Oil Mills
	1	2	3	4
(A)	1952			Proposal for the manufacture of NSD was submitted on 24-12-1952,
(B)	1953			Government approved the proposal on 4-2-1953.
(C)	1955			Government sanctioned foreign exchange expenditure of Rs. 5·50 lakhs.
(D)	1956	Proposal for import of Plant & Equipment for the manufacture of NSD (3600 tonnes p.a.) was approved.		
(E)	1957 (Feb)		Application for an industrial licence for NSD plant at Bombay was submitted on 13-2-1957.	
(F)	1957 (July)		Government rejected the application on 25/26-7-1957.	
(G)	1957 (July)			Company started production of household and industrial NSD. In 1957 the Company was the only manufacturer of NSD (Capacity 3,000 tonnes p.a.).
(H)	1957 (Aug.)		Government proposed certain conditions for reconsidering the Company's application.	
(I)	1958 (Jan.)	Application for an industrial licence was made on 17-1-1958 (capacity 3,600 tons p.a.).		
(J)	1959 (Mar.)	Licence for capacity of 3,600 tons p.a. was granted.		
(K)	1959 (July)			Applications for expansion to manufacture NSD of non-ionic type and basic raw materials like Alkyl Benzen Oxide, Fatty Alcohol , Poly phosphate etc. filed and then withdrawn on Government's suggestion because the Company could not furnish detailed foreign collaboration terms.
(L)	1959 (Dec.)	Production started in December, 1959 at Bombay.		
(M)	1960			Government granted permission to the Company to manufacture Non-onic detergents, Cationic detergents and alcohol sulphates.

1		2	3	4
(N)	1960 (Feb.)		Application for an industrial licence for a capacity of 36,000 tonnes p.a. was submitted on 15-2-1960.	
(O)	1960 (Dec.)		Licence for a capacity of 3,600 tonnes p.a. was granted on 7-12-1960.	
(P)	1963 (Mar.)	Application for a capacity of 8,000 tonnes p.a. at Calcutta was submitted on 9-3-1963.		
(Q)	1964 (Feb.)	Licence for a capacity of 8,000 tonnes p.a. at Calcutta was granted on 14-2-1964.		
(QQ)	1964 (Mar.)			Application was made for a new unit at Calcutta for a capacity of 3,600 tonnes p.a. on 6-3-1964.
(R)	1964 (Apr.)		Application for a new unit at Ghaziabad with a capacity of 8,000 tonnes p.a. was made on 29-4-1964.	
(S)	1964 (Dec.)		Government rejected the Application for a new unit at Ghaziabad on 19-12-64.	Application for a new unit a Calcutta with a capacity of 3,600 ton p.a. was rejected.
(T)	1966 Apr.)	Application was made on 29-4-1966 for a new unit at Ghaziabad with a capacity of 14,000 tonnes p.a.		
(U)	1966 (July)		Application was made for a new unit at Ghaziabad on 28-7-1966.	Application for expansion of capacity upto 12,900 was made on 27-7-1966.
(V)	1966 (Aug.)			Three applications for new units at Ghaziabad, Madras and Calcutta with a capacity 4,500 tonnes p.a. each were made on 10-8-66.
(W)	1967 (Apl.)		Application was made for expansion of capacity at Bombay from 3,600 to 17,000 tonnes p.a. on 6-4-1967.	
(X)	1967 (July)	(i) Application was made on 18-7-1967 for expansion of capacity from 3,600 to 7,100 tonnes p.a. at Bombay. (ii) Application was made on 18-7-1967 for expansion of capacity from 8,000 to 13,000 tonnes at Calcutta.		
(Y)	1967 (Oct.)			Applications for three new units at Ghaziabad, Madras and Calcutta were rejected on 9-10-1967.
(Z)	1967 (Dec.)	Expansion from 3,000 tonnes p.a. to 7,100 tonnes p.a. at Bombay was granted on 30-12-1967.		Expansion from 3,600 to 11,800 tonnes p.a. was granted on 30-12-1967.

(AA)	1968 (Aug)			Application for expansion of capacity from 11,880 to 20,112 tonnes p.a. at Bombay was made on 10-8-1968.
(AB)	1968 (Nov.)	Application for a unit at Ghaziabad was rejected on 11-11-1968.	Following three applications were made on 27-11-1968 :— (i) 10,000 tonnes at Ghaziabad. (ii) 10,000 tonnes at Madras. (iii) Expansion from 3,600 to 20,000 at Bombay.	
(AC)	1968			Two applications for a capacity of 12,000 tonnes p.a. each in North and South India respectively were made.
(AD)	1969 (Jan.)	(i) Expansion at Calcutta from 8000 to 13000 tonnes p.a. was sanctioned on 21-1-1969. (ii) Expansion at Bombay from 7,100 to 10,000 tonnes p.a. was sanctioned on 21-1-1969.	Expansion at Bombay from 3600 to 10,000 p.a. was sanctioned on 21-1-1969.	
(AE)	1969 (Mar.)		The Application for a new unit at Ghaziabad made in July 1966 was rejected on 11-3-1969.	
(AF)	1969 (Sept.)		Applications for new units at Ghaziabad and Madras made in November 1968 were rejected on 1-9-1969.	
(AG)	1969 (Nov.)			Applications for two new units in North and South India were rejected on 1-11-1969.
(AH)	1971 (Feb.)		Application for expansion from 10,000 to 25,000 tonnes p.a. at Bombay was made on 5-2-1971.	
(AI)	1971 (Mar.)			Expansion from 11,880 to 20,000 tonnes at Bombay was granted on 15-3-1971.
(AJ)	1972 (Mar.)		Two applications for new units at Ghaziabad and Dubri for a capacity of 15,000 tonnes p.a. were made in March, 1972.	
(AK)	1972 (July)	Application for a new unit with a capacity of 14,000 tonnes p.a. in Bihar was made on 12-7-1972.		
(AL)	1972 (Aug.)		Application for expansion at Bombay from 10,000 to 25,000 tonnes p.a. was rejected on 23-8-1972.	

1		2	3	4
(AM)	1972 (Oct.)		Application for expansion from 10,000 to 20,000 at Bombay was made on 26-10-1972.	
(AN)	1972 (Nov.)			Application for expansion from 20,000 to to 39,000 at Bombay was made on 4-11-72.
(AO)	1973 (Mar.)	(i) Application for a new unit with a capacity of 14,000 tonnes p.a. in Jammu was made on 2-3-1973. (ii) Application was made on 6-3-1973 for a new unit in Uttar Pradesh in place of Bihar for a capacity of 14,000 tonnes p.a.		
(AP)	1973 (May)		Permission was granted on 8-5-1973 to double capacity at Bombay from 10,000 to 20,000 tonnes p.a.	Permission was granted on 8-5-1973 to expand capacity at Bombay from 20,000 to 39,000 tonnes p.a.
(AQ)	1973 (July)	(i) Permission was granted to double the capacity at Bombay from 10,000 to 20,000 tonnes p.a. on 30-7-1973. (ii) Permission was granted to double the capacity at Calcutta from 13,000 to 26,000 tonnes p.a. on 30-7-1973.		

ANNEXURE II

Demand Projections of NSD by Hindustan Lever

I. *Methodology:*

The applicant Company has prepared estimates of demand for NSD for the years 1973 to 1982, in the following stages. Firstly, the Company has estimated future demand for total washing products. The estimates of demand for total washing products are claimed to be based on a relationship worked out between per capita consumption of washing materials on the one hand and per capita gross national product (GNP) on the other in respect of countries with per capita GNP below £. 100. The information supplied is not sufficient for examining as to how this relationship—as established by Hindustan Lever—has been worked out. One does not, for instance, know how many years' data are used to arrive at the Regression Equation:

$$``Y = 0{\cdot}2660 + 0{\cdot}0262\ X"$$

where Y stands for per capita consumption of washing products (in Kgs.) and

X stands for per capita GNP (in £s).

The expected per capita consumption of washing products in India for the year 1971 has been estimated to be 1.26 Kg. on the basis of this equation. This was compared with the actual consumption of 1·58 Kg. as worked out by Hindustan Lever and it was observed that this was 25% above the expected value. The 'washing habits' of Indians are given as the reason for this. On the assumption of a 5·5% annual rise in national income, estimates of consumption of washing products for the years 1973 to 1982 have been arrived at with the help of the regression equation and the correction factor.

After this, the share of NSD in the total washing products has been estimated. This is done presumably on the basis of past trends in India and also drawing on international experience—the experience of a rapid changeover to NSD in U.S.A. and Japan in the 1940s and the 1950s is mentioned in support. An exponential curve seems to have been made use of to arrive at the proportion of NSD in the total consumption of washing products, but the basis for it has not been clearly stated. On this basis, it is assumed that the proportion of NSD in total washing products would rise from 7·1% in 1972 (actual) to 26% by 1979 and 42% by 1982. By applying these proportions to the estimated value of demand for total washing products, estimates of demand for NSD have been arrived at for the years 1973 to 1982. These have been taken as the 'low estimates' of demand for NSD by the Company.

The company has prepared 'high estimates' of demand for NSD by allowing for special steps for substituting soaps by NSD which may have to be undertaken in India in view of the shortage of oils. It has been assumed that soap production will remain stagnant at 800,000 tonnes, and the additional requirements of washing products would all be met from NSD. The additional quantities arising from this factor have been added to the earlier projected figures of demand for NSD. This has been done without taking into account the superior washing qualities of NSD as compared to soap, quantity for quantity. It is usually understood that 1·6 tonnes of soap is equivalent to 1 tonne of NSD to obtain the same washing effect.

II. *Comments*

At the outset it should be noted that full details relating to the estimation of future demand of NSD have not been supplied by the company to the Commission. The Company initially supplied its demand estimates to the Commission (*vide* its letter dated April 21, 1973). The Commission wrote to the Company asking for the detailed basis of the demand projections, first, on May 1, 1973, and again on July 18, 1973. The Company indicated that these details would be presented to the Members of the Commission who were to visit the Company's factory at Bombay by the end of July, 1973. A few charts and tables were shown to the Members and were supplied to the Commission (vide Company's letter dated August 14, 1973). Some additional information was given at the time of the Public

Hearing. The detailed scrutiny of the estimates given by the Company was not possible due to inadequate information available with the Commission. The comments offered below are therefore subject to this limitation.

(i) In the Company's exercise, the effect of possible changes in the pattern of income distribution have not been taken into account.

(ii) It is not clear how far the experience of other countries is relevant for such an exercise in view of the differences in factors like geographical conditions, living habits, levels and distribution of incomes etc. all of which effect the demand.

(iii) In support of the regression equation between per capita consumption of wahing material and per capita GNP, the Company has supplied two charts—the first showing a non-linear fit to 48 points, and the second showing a linear fit to nine points representing countries with per capita GNP below £100, and 39 points representing other countries, i.e., those with per capita income above £100. How many year's data have been made use of in arriving at this relationship is not clear. One gets the impression that such a relationship at one point of time only has been made use of. Again, the names of all the countries whose experience has been taken into consideration have not been mentioned.

(iv) Having arrived at a relationship, the estimate arrived for India for one year—1971—has been found to be much lower (75%) than the actual consumption. On this basis, the Company has assumed a correction factor of 25% to the estimates for future years prepared on the basis of its regression equation. Such a procedure cannot be accepted as scientific. The meaning and purpose of the whole regression analysis is lost when one plays with the final figures to suit one's requirements.

(v) For arriving at the actual per capita consumption of washing products in 1971, the Company has assumed a total production of washing products at 858 thousand tonnes. According to the official information available, the production in 1971 was 692 thousand tonnes only, giving a per capita consumption of about 1.32 Kg. This implies that the 'correction factor' of 25% assumed by the Company on the 'expected' value is highly exaggerated, and the Company's figures to this extent are over-estimates.

(vi) The basis for determining the proportion of NSD in total washing products is not clearly indicated.

(vii) On the basis of the all-India projected demand for NSD, the Company has estimated such demand for the four main regions, namely, North, East, West and South, to arrive at regional requirements of STPP. The all-India estimates have been allotted to various regions by fixed percentages in all the years, the basis for which is indicated to be data collected by the Operations Research Group. No details are available and hence it has not been possible to examine these.

(viii) The Company has also prepared projections of demand on the assumption that GNP will increase at the rate of 4% p.a. instead of 5.5% p.a. These are not reproduced here and commented upon as the Company has based its arguments on the estimates related to 5.5% p.a. rate of GNP growth.

(ix) The Company has given the approximate position of production of washing products in 1982 in comparison with the position in 1972 as follows:—

		1972	1982
1.	Soaps—Cottage Sector	623,000	593,000
2.	Soaps—Organised Sector	207,000	207,000
3.	Soaps—Total	830,000	800,000
4.	Synthetic Detergents	61,000	641,000

The effects of such a development on small scale units is clear, if one takes into account the fact that most development of NSD production would be in the organised sector.

TABLE

Demand Estimates for Non Soapy Detergents Prepared by Hindustan Lever Ltd.

(000 tonnes)

	Projected Demand for Washing Products (5·5% rise in G.N.P.)	Estimated share of NSD	Demand for NSD	Demand for Soap based Products	Additional NSD Demand	Total demand for NSD (4+6)
1	2	3	4	5	6	7
1973	921	10	92	819	..	92
1974	956	12	115	841	..	115
1975	1000	14	140	860	..	140
1976	1038	17	176	862	..	176
1977	1077	20	215	800*	62	227 (277)†
1978	1142	23	263	800	79	392 (342)†
1979	1211	26	315	800	96	411
1980	1300	32	416	800	84	500
1981	1340	37	496	800	44	540
1982	1441	42	605	800	36	641

NOTES.—(i) Estimate given in column 4 have been given as 'low' estimates and in column (7) as 'high' estimates.

(ii) The Company has also prepared estimates based on growth of National Income at 4% p.a. but these have not been reproduced here.

*Soap products contained at 800,000 tonnes.

†Corrected for mistakes in additions.

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ANNEXURE III

Employment potential of the STPP Project of Hindustan Lever.

1 *Employment in the proposed factory :*

(i) Direct factory, employment	300 men
(ii) Movement of raw materials and finished products for the factory	200 „
(iii) Provision of other services like spares, supplies etc.	500 „
	1000 „

2. *Employment in industries arising from the project :*

If 30,000 tonnes p.a. of STPP are used in detergent formulations at the rate of 20% incorporation it will produce 150,000 tonnes p.a. of detergents. Assume that at least 50% of the product will be manufactured and sold in West Bengal, i.e. 75,000 tonnes p.a. of detergents.

This will give rise to the following chain of employment opportunities :

(a) Direct employment in detergent production as powder/bar at the rate of 40 man-hours per tonne or product and average of 200 working days/annum	1500 men
(b) Production of packaging materials and ingredients for the detergent factories will involve about half this number	750 „
(c) Handling of raw materials and finished goods of detergent factories, i.e. 75,000 tonnes raw materials and 75,000 tonnes finished goods to be moved in lots of 5 tonnes each which will be take 2 man-days per lot	300 „
(d) Trading and other service functions generated by detergents . About 3% of the value of 75,000 tonnes p.a. of detergents i.e. 75 crores, will be earned by the trade. Assuming 1% cut of this will be as wages or remuneration for self employment, such earnings will amount to Rs. 75 lakhs p.a. At Rs. 1,500 per head per annum, the equivalent employment generated is 5,000	5000 „

3. *Summary*

In the Phosphate factory directly and indirectly		1,000 „
In detergent industry	1,500 750 300 5,000	7,550 „
Total		8,550 „
Say		8.500 „

(*Source :* The Applicant Company).

Abbreviations used in the Report

AMP	Albright Morarji and Pandit Ltd.
DCM	Delhi Cloth and General Mills Ltd.
DDB	Deedcyl Benzene.
DGTD	Director General of Technical Development.
HL	Hindustan Lever Ltd.
MRTP ACT	Monopolies and Restrictive Trade Practices Act.
NSD	Non Soapy Detergents.
TOMCO	Tata Oil Mills Company Ltd.
STPP	Sodium Tripolyphosphate.

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No. 2/7/72-M (I)

GOVERNMENT OF INDIA

MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS,
DEPARTMENT OF COMPANY AFFAIRS,
SHASTRI BHAVAN (5th FLOOR, 'A' WING)
DR. RAJENDRA PRASAD ROAD

BEFORE THE CENTRAL GOVERNMENT

In the matter of application under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969.

And

In the matter of proposal of Messrs Hindustan Lever Limited for setting up a new Undertaking for the manufacture inter-alia of Sodium Tripoly-Phosphate (STPP).

Messrs Hindustan Lever Limited (hereinafter referred to as "the applicant Company") made an application under Section 22 of the MRTP Act, 1969 (hereafter referred to as "the Act") to seeking approval of the Central Government for setting up a new undertaking at Haldia in West Bengal for the manufacture of Sodium Tripoly Phosphate (STPP) and other products.

2. The applicant Company is registered under Section 20 (a) (i) of the Act and is a foreign majority company.

3. As required under the prescribed Rules the proposal was advertised and in response thereto a number of parties filed their objections while a few parties wrote in support of the proposal.

4. On a consideration of the available information and more particulary the objections made against the proposal the Central Government formed the opinion that an order on the proposal could not be made without further enquiry. Accordingly the proposal was referred to the MRTP Commission (hereafter referred to as "the Commission") for an enquiry and report. The Commission forwarded its report to Government recommending approval of the proposal subject to certain conditions. There was a note of dissent by a member.

5. An opportunity of being heard in terms of Section 29 of the Act was given to the applicant Company and to the parties interested in the proposal including the objectors.

6. The proposal mainly relates to the production of STPP which is the main raw materials (30%) for the production of Synthetic Detergent. In India a shift from the conventional washing soap to Synthetic Detergent has become an urgent necessity due to the stoppage of import of tallow and the shortage of edible fat in the country which constitute the main raw materials in the production of soap. Synthetic Detergent is a cheap and efficient replacement of soap and also an import substitution item. There is at present a wide gap between the demand and supply of STPP which is the main raw material for the production of Synthetic Detergent. An element of urgency therefore exists for creating additional capacity for the manufacture of STPP for avoiding in turn shortages in the production of Synthetic Detergent.

7. The proposal of the applicant Company has to be viewed in the above context. The proposal has a number of factors in its favour and at the same time it has also attracted some objections. The Commission after going at great length into all the objections raised and other relevant matter has recommended that it would be in the public interest to approve the proposal. The points in favour of the proposal may be summarised as under :—

1. The proposal satisfies the criteria of approval laid down in Section 28 of the Act, namely, by bringing into existence a new enterprise as countervailing force to an existing monopoly, fostering competition, reducing regional disparities through the development of backward areas, generating employment etc.

2. The proposed plant is in the core sector, capital-intensive, involving sophisticated technology and is to be located in a backward area. It will generate employment and also provide the benefits of import substitution. Investment in such a project by Hindustan Lever Ltd., a foreign majority company is permissible in terms of the current Industrial Licensing Policy of Government.
3. The proposed plant at Haldia will produce 30,000 tonnes of STPP per annum and thereby save about Rs. 5 crores in net foreign exchange. Further 30,000 tonnes of STPP will enable the production of about 100,000 tonnes of Synthetic detergents which in turn will avoid the import of about 100,00 tonnes of tallow for soap making. The saving in foreign exchange outgo would be Rs. 30 crores per annum.
4. The MRTP Commission on a review of the over-all position felt that the proposed plant by Hindustan Lever is expected to be one of the quickest to be implemented as the company is professionally managed, has a proven record for speedy utilisation of capacity and a research-oriented outlook with a strong R & D base.
5. The project will, it is estimated, generate employment directly to 300 persons and indirectly to many times that number.
6. An estimated sum of Rs. 1434·87 lakhs will accrue as revenue under various heads to the State and Central Governments.
7. All-India demand for STPP by the end of the Fifth Plan period was estimate to be 1,33,000 tonnes. 34% of that demand is expected to be in the Eastern Region i.e. approximately 45,000 tonnes. The Hindustan Lever is the only applicant ready to set up a plant in the Eastern Region and that too in a backward area.
8. At present almost 100% monopoly position in the production STPP is held by M/s. Albright Morarji & Pandit Pvt. Ltd., having 46% non-resident shareholdings and a company belonging to the Dharamsy Morarji Group. The project of the Hindustan Lever will be one which will quickly break this monopoly.
9. The project will be set up in a backward district and will encourage the growth of a number of ancillary and small scale industries in the area.
10. The proposal will lead to a very significant reduction of foreign shareholding in the applicant company by 15%. The company has agreed to bring down the foreign shareholding from the existing level of 85% to 70%.
11. The project, if approved, will constitute less than 20% of the All-India capacity so far approved and under consideration and this there is no possibility that the applicant company will occupy a commanding position in the field of STPP manufacture.

8. The main points of objection raised against the proposal and emphasised by the dissenting Member of the MRTP Commission in his note of dissent for not supporting the proposal may be summarised as under :—

(1) The applicant company is having large foreign holdings in its shares to the extent of 85% of the equity.

(2) The applicant company is itself a manufacturer of Synthetic Detergent commanding 43% of the present capacity and is thus dominant in that field. If this company is now allowed to manufacture STPP also (which is the main raw materials for Synthetic Detergent) that would lead to vertical integration and expose other Synthetic Detergent manufacturers to the dangers of unequal competition from the applicant company.

(3) The company does not possess any expertise and technical know-how for the manufacture of STPP and thus import of foreign technology would be necessary.

9. In regard to the first objection mentioned above, it may be stated that the project in question belongs to the core-sector in which large houses and foreign majority companies are eligible to participate in terms of current Industrial Licensing Policy. Within this field this category of industrial houses should be allowed to grow and expand unless there are over-riding considerations against such growth and expansion in the public interest. In this case there is no such consideration for not allowing this project. Further, approval of the present proposal will have the effect of bringing about a substantial dilution of foreign shareholding in the applicant company from the existing level of 85% to 70%. This recommendation of the Commission has also been accepted by the company.

10. The objection regarding vertical integration would appear to be more theoretical and do not seem to take into account the realities of the Indian situation. This argument about possible adverse effect of vertical integration will have validity in a situation obtaining in a free enterprise economy where market considerations have the ultimate say. But in the conditions prevailing in the Indian economy where Government will have the control over the import of rock phosphates (the principal ingredient of STPP), over the manufacturing capacity of the producing firm both in STPP and Synthetic Detergent and even over such of factors as price, vertical integration can hardly operate to the disadvantage of other producers of Synthetic Detergent and to the advantage of the applicant company. Then again the adverse effect of vertical integration can be effectively countered by the imposing suitable conditions in granting approval to the proposal. The MRTP Commission has certain suggested remedial safeguards in this regard, namely, the company should earmark a certain percentage of its STPP production for sale to outside parties including small-scale manufacturers of Synthetic detergent and also make such supply at the same rate at which the company itself will be supplying for its own captive consumption. In the coming year the Hindustan Lever's share of the Synthetic Detergent market (now 43%) will progressively diminish and its present dominant position will also substantially go down. As a result any possible advanatge arising out of vertical integration will also diminish. Further there are many examples of vertical integration in Indian industry notably textiles etc.

11. In regard to the third objection about technology, the MRTP Commission has pointed out that the existing manufacturers namely M/s. Albright Morarji & Pandit Pvt. Ltd. has imported technical know-how. The applicant company has indicated its willingness to buy indigenous technology if available in preference to imported technology. It has argued that the manufacturing technology is only a part of the know- how in any industry. In the case of STPP the applicant company claims to have a greater knowledge of its chemistry and its uses than any one else in India. With its sound R & D base the company claims that it will be possible for it not only to acquire the know-how, but also to build on it and improve it in the future years. Besides, one of the conditions suggested by the Commission is that the company will go in for import of technology only if indigenous technology is not available and subject to prior approval of the Government.

12. Another ground on which the dissenting Member of the Monopolies and Restrictive Trade Practices Commission has not supported the proposal is his doubt about the demand projection of STPP as accepted by the Majority Members of the Commission and his view is that the actual demand might be much smaller. He has however not given his own basis for what the proper demand projection should be. On this issue it may be stated that the Commission (Majority Report) has arrived at the demand estimates of STPP after carefully examining the data provided by several other responsible bodies viz. the Indian Soaps and Toiletries Maker's Association, the Indian Petro-Chemical Corporation (a public sector undertaking), the Task Force on Petro-Chemicals set up by the Ministry of Petroleum and Chemicals and the sub-group of the Planning Commission on soaps and detergents. Obviously in a matter like this Government should be guided more by the estimates made by these expert bodies. The dissenting Member has also anticipated the possibility of a fall of demand for Synthertic Detergent in the event of a possible shift of incomes to rural areas and to lower income groups as a result of Government Policy. This does not seem to be very valid. On the other hand when a shift income takes place in favour of lower income groups the result will be an overall increase in the consumption of Synthetic Detergent which will be more cheap and efficient washing material available. There is already an increasingly acute shortage of oils and fact which in turn is bound to result in poorer quality and higher price of conventional washing soap.

13. The MRTP Commission has recommended eight conditions for approval of the project by way of safeguards against its adverse features. In the course of the hearing and in subsequent communications the applicant company has indicated its acceptance of these conditions subject to certain clarifications. On behalf of the applicant company it was clarified that the recommendations of the Commission that Hindustan Lever should consume its own STPP only at its Synthetic Detergent factory at Calcutta and not in its factory elsewhere, was an unnecessary restraint as difficulties would arise in the event of strike and other dislocation of production at the Calcutta factory. The applicant company also accepted the condition regarding the supply of STPP to other Synthetic Detergent manufacturers at the same price at which it would supply to its own factory for captive consumption. For that purpose the company agreed to maintain the necessary records for enabling verification. In regard to this condition the applicant company however clarified that it would not be possible to sell its products at its cost of production. The company would charge prices which has to take into account not only the cost of production, but also the return on capital and the competitive pricing.

14. The Government of West Bengal have very strongly supported the proposal on account of its vital socio-economic aspects and in the context of that Government's declared policy of regenerating industrial growth in West Bengal. It has been argued during the hearing that there has been practically no investment made by any large entreprenur in West Bengal since 1966 and despite the earlier predominance in the industrial field West Bengal's economy has been steadily sliding backward leading to an alarming rise in the level of unemployment, problems of law and order and political and industrial unrest. The present proposal is expected to serve as a catalyst in arresting this backward trend and putting West Bengal back into the process of recovery of the industrial climate.

15. On a balance of consideration of the arguments in favour of the proposal and against it the weight of evidence is clearly in favour of the proposal.

16. After atking into account the relevant factors including the findings and recommendations of the MRTP Commission as embodied in its Report, the contents of the note of dissent attached to that Report, the submission made by the parties in the course of the hearing the Central Government is satisfied that it will be expedient in the public interest to accord approval to the proposal of the applicant company subject to the conditions stipulated in the order herein below :—

ORDER

In exercise of its powers under clause (c) of sub-section (3) of section 22 read with Section 54 of the MRTP Act, 1969 the Central Government hereby accords its approval to the proposal of Messrs Hindustan Lever Limited subject to the following conditions :—

(1) The applicant Company should issue fresh shares to the Indian public, to the exclusion of the foreign shareholders to the extent which will, after the proposed issue of bonus shares in the proportion of one new share to every six shares reduce the shareholding of the non-resident shareholder from the present figure of 85% at the most to 70% during the course of implementation of only the project for the manufacture of sulphuric acid, phosphoric acid and industrial phosphates (STPP). This condition will not operate as a precedent for any other future projects of the company.

(2) The applicant company shall adhere to the phased programme indicated in the application pertaining to this proposal namely it will achieve the production of 18,000 tonnes in the first year of the commencement of the production, 27,000 tonnes in the second year and 30,000 tonnes in the 3rd year.

(3) The import of capital goods for the project shall be subject to approval of the Government.

(4) The project shall be located at Haldia in the District of Midnapore, West Bengal.

(5) The applicant company will try to obtain technology and know-how for the proposed project from Indian sources and for that purpose the company will issue an advertisement inviting proposals from Indian parties and consider the same and the terms and conditions on which these are offered.

(6) The applicant company will go in for import of technology and know-how from foreign sources only if requisite technology and know-how is not available in India or is not upto date and satisfactory or is not available on suitable terms and conditions and subject to prior approval of the Government.

(7) The applicant company will earmark a certain percentage of its STPP production for sale to outside parties and will submit a scheme for this purpose for prior approval of Government.

(8) The applicant company shall supply STPP produced by it to other manufacturers of Synthetic Detergent at the same rate at which the applicant company will supply STPP for its own captive consumption. For this purpose the applicant company will maintain separate cost accounts fort the new project so that the cost of the production of STPP may be separately determined and Government may, if necessary, consider the question of taking action under section 209 (1) (d) and/or Section 233 B of the Companies Act, 1956.

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(9) The applicant company shall be required to undertake export obligation at least upto the level of 20% of its annual production of STPP. It will however be open to the applicant company to apply to the Central Government for considering the question of waiving this export obligation for a period of time in the light of circumstances then prevailing in the country in regard to demand and supply of this basic raw material.

(10) The loans from financial institutions shall be subject to the right of insertion of convertibility clause according to the Government policy.

(11) The applicant company shall ensure that the debt-equity ratio does not exceed 2:1 and net block-debt ratio does not exceed 1:0:5.

(12) Such other conditions as may be imposed in the letter of intent.

(Sd.)
(A. K. GHOSH)
Under Secretary to the Government of India.

NEW DELHI-1,
the 6-3-74.

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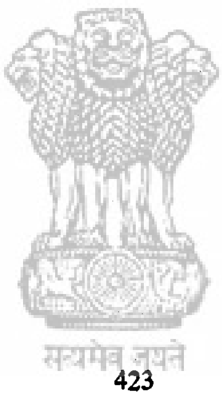
REPORT UNDER SECTION 22(3)(b) OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969, IN THE CASE OF INDIAN EXPLOSIVES LIMITED, CALCUTTA



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INTRODUCTION

0.01 Indian Explosives Ltd., Calcutta, (hereinafter referred to as IEL),submitted to the Government of India, Department of Company Affairs, on August 31, 1974, an application under Section 21 of the Monopolies & Restrictive Trade Practices Act for approvel of its proposal to effect substantial expansion of their undertaking by the additional manufacture of 15,000 tonnes of commercial blasting explosives. IEL already had an installed capacity of 28,000 tonnes, and had indicated that it was possible for them to increase production by 7000 tonnes by utilising the security stand-by equipment. The annual installed capacity (or estimated capacity) after expansion would be 43,000 tonnes. It was proposed to establish the new factory in Western/Central India. IEL also claimed in its application that the proposed new factory can be established by them with the minimum requirements of rupees and foreign capital and "without having to purchase foreign know-how". The Department of Company Affairs decided to treat the proposal under Section 22 (instead of Section 21) as it was intended to establish a new undertaking for the manufacture of explosives. The Company, however, maintained that its application should be treated under Section 21 and not under Section 22. The Company's contention in this regard is as follows :

> "The proposal submitted by the Company is for substantial expansion of its existing activities and not for establishing a separate undertaking. The form of Notice to the Central Government for intention to make substantial expansion as prescribed under the MRTP Rules refers *inter-alia* to the name and address of the 'undertaking' (item I) and also whether the 'undertaking' is a body corporate (item 5(iii)). The undertaking being Indian Explosives Limited and the proposal being one for substantial expansion of existing activities, we are of the view that this comes logically under the provision of Section 21 of the Monopolies & Restrictive Trade Practices Act and Section 22 does not have any application."

The Department of Company Affairs *vide* its letter No. 1/41/74-M-III referred this application to the Monopolies & Restrictive Trade Practices Commission under Clause (b) of sub-section 3 of Section 22 for enquiry and report.

0.02 The Commission issued a Notification on October 23, 1975, which was published in various newspapers on or about November 3, 1975. Under this Notification, the Commission invited information and comments regarding IEL's expansion proposal. In terms of sub-section 2 of Section 30 of the Monopolies & Restrictive Trade Practices Act, the Commission was to submit its Report to the Central Government by 18th January, 1976. However, the date for submission of the Report had to be initially extended to 17th April, 1976, as information from the applicant Company as well as various Government Departments and private parties had not been received in time. A questionnaire was sent to IEL on November 5, 1975, and it was asked to furnish information by November 30, 1975. Some of the information was received from the applicant Company by the end of November,1975, and some more by the middle of December, 1975. Further information and clarifications were received during and upto 9th April, 1976. This necessitated extension of the date of the submission of the Report upto April 17, 1976. The public hearing in the case was held on March 29,

1976. The list of persons who were present at the Public Hearing is given in Appendix I.

0.03 On 6th April, 1976, the Commission received three more references from the Government relating to the applications of M/s. WIMCO Ltd., M/s. Chowgule & Company Pvt. Ltd., and M/S. Maharaja Shree Umaid Mills Ltd., for the manufacture of Industrial Explosives. The Commission then decided to take into consideration the above three proposals also before giving its Report on the proposal of IEL, as these also related to the manufacture of Industrial Explosives. For this purpose the date for submission of the Report was initially extended upto 12th June, 1976 and later upto 31st July, 1976.

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CHAPTER I

THE BLASTING EXPLOSIVES INDUSTRY IN INDIA

Introduction

1·01 The method of using explosives to loosen rock is said to have come into use at the beginning of the 17th Century. In Germany, rock blasting powder was introduced in mining where the contraction cracking method had earlier been used. This method consisted of making up fires to heat the rock and then throwing water on it, the rapid contraction giving rise to stresses in the rock which, in their turn, caused cracks. After this step the rock used to be broken up by using sledge-hammers, crow-bars and wedges. In 1864, Alfred Noble started to manufacture blasting oil based on liquid nitroglycerine. This product attained an extremely wide field of use and came to be produced all over the world.*

1·02 Nitroglycerine, a heavy oily liquid, is prepared by treating purified glycerine with a cooled mixture of concentrated nitric and sulphuric acid. This was produced in 1846 by a Professor of Chemistry at Turn, Ascanio Sobrero. He recognised its commercial possiblities but seems to have been deterred by the danger of handling it.

1·03 In the expanding mid-19th Century world, there was considerable increase in mining activity—gold in America and Australia, coal and iron in Europe and America. There was also considerable increase in public works; harbours, canals, bridges and specially railways. A need was therefore felt for an effective blasting explosive. In view of this situation, Alfred Noble was able to secure financial support for starting work on developing the process of commerical production of nitroglycerine discovered by Sobrero and also to remove its limitations. Noble made many attempts to devise an 'igniter' for nitroglycerine but his experiments only led him to observe that what was required was a strong shock. After experimenting with various materials, he discovered in 1865 the 'detonator' which could be handled safely and which could be crimped on to the end of a length of safety fuse to provide a reliable means of detonating the nitroglycerine to full effect. This has been considered the most fundamental invention in this field, since without it dynamite or the later explosives would have been useless.

1·04 With the help of the detonator, a nitroglycerine came into use extensively as an explosive for civil construction and mining under the name 'blasting oil'. In 1865, Noble floated a company and started manufacture of nitroglycerine in Germany. Noble also tried to establish companies in the U.K., the U.S.A. and all over Europe. He established a company in the U.S.A. in 1865, but had to give up control of this in 1885. Around 1871, Noble also established the British Dynamite Company in Scotland and started production of nitroglycerine from 1873. This Company was later transformed to form Noble Industries Ltd., and the latter was one of the units whose merger led to the formation of Imperial Chemical Industries (ICI) Ltd. (U.K.) in 1926.

1·05 Nitroglycerine, though greatly superior in performance to gun powder, suffered from the disadvantage of being a liquid requiring expansive containers for transport. It could only be used in vertical or downward sloping boreholes, which was not always convenient. There was also the risk of the liquids sipping away into crevices and lying undetected until set off by chance. The material was also useless under water. Noble experimented with various materials and finally found a claylike substance, *kieselguhr*. which when mixed with nitroglycerine became a plastic doughlike mass, which could be easily extruded as a long stick. By cutting this material into suitable lengths and wrapping it with waxed paper, it could be put in the form of a cartridge, suitable for almost any borehole. This invention was named by Noble as 'Dynamite'.

1·06 Dynamite was one of the major inventions of the nineteenth century. The term *dynamite*, originally used as a trade name applied specifically to the composition of nitroglycerine and kieselguhr, now long obsolete, is extensively used even now in its generic sense to cover the whole field of explosives. However, 'dynamite' also suffered from certain limitations. Its strength was only about 75% of that of the blasting oil though it was much safer. There was also need of water-proofing the cartridges and protecting them from undue exposure to moisture, as absorbed nitroglycerine is easily displaced by water. By about 1875, Noble produced his third major invention, blasting gelatine, by incorporating nitrocellulose in nitroglycerine. The product this preapred is not liable to exude nitroglycerine and is also resistent to water. It is adequately stable to shock, friction and handling but it can be readily detonated by a detonator of convenient stregnth. It is said that Nobel's detonator, *guhr* dynamite and blasting gelatine with its derivatives gave civil engineering a completely new system of blasting.*

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*Material based in Rune Gustafsson: "Swedish Blasting Technique", Published by SPI, Gothenberg, Sweden, 1973.

1·07 The importance of commercial explosives to modern industries cannot be overemphasised. It would not have been possible to obtain large quantities of minerals like coal, lime stone and iron ore without the use of commercial explosives. Explosives are widely used in all forms of mining and quarrying; for shaft sinking, tunnelling and excavations; for making roadways and laying foundation for dams; for demolishing buildings, chimney stacks, bridges etc; for deepening rivers and harbours; blasting wrecks and underwater obstructions; for seismic prospecting; for tree stump removal, ditching, boulder breaking and many other purposes. Small quantites of explosives are also used for well and canal digging.

1·08 It appears that Nitro-Glycerine (NG) based explosives continued to hold full swav till about 20 years back, though the forms of the dynamite used changed with the years. More recently they consist of a greater percentage of Ammonium Nitrate of similar substances as compared to Nitroglycerine.

1·09 A new development which initially took place in the United States in the 1950s was that of mixed explosives of the Ammonium Nitrate/Fuel Oil (ANFO) and Slurry type which have gradually penetrated a considerable part of the U.S. market.These explosives have certain basic characteristics which are different from the earlier NG based types. In the case of latter, Nitroglycerine, which is a raw material of great sensitivity, is so handled in the process of production as to reduce its sensitivity to a level at which it can still function as a controlled explosive. In the case of Slurry explosives, the process begins with materials of low sensitivity almost similar to the chemicals found in any chemical laboratory and, only in the final stage, just before packing the mixture of different chemicals, substances are sensitised to a level at which they can act as explosives. Producers of Slurry explosives have claimed that this development is as important in the field of explosives as Noble's invention of Nitroglycerine and the creation of dynamite as a replacement for gun powder. It is claimed that the last days of dynamite are on the horizon and that Slurry explosives and ANFO will replace NG based explosives almost completely over the years. At present however it appears that even in Europe the use of the new type of explosives is limited.

1·10 The basic difference between NG explosives and Slurry explosives is that for manufacturing NG explosives nitroglycerine which is an explosive by itself is diluted to detonate while, in the case of Slurry, ammonium nitrate which is not an explosive by itself is turned into an explosive by various processes. The comparative advantages/disadvantages and Slurry explosives are as under.†

Nitro-glycerine Explosives

1·11 Nitro Glycerine the name suggests, are based on nitroglycerine. The process for the manufacture of NG based explosives involves both a chemical process and mechanical mixing and packing. For these explosives, important ingredients like Nitroglycerine have to be handled with great care as they are explosives by themselves. NG based explosives have to be handled with great care at the packing stage, and since they are very sensitive to friction, they cannot be transported without elaborate precautions. NG explosives cannot be loaded into bore-holes mechanically due to the same reason. These explosives are used in mines, they cause headache to the miners, though miners do get accustomed to them over time. The use of NG based explosives after detonation results in fumes which are noxious, and need efficient ventilation in mines. Due to the fumes, NG based explosives cannot be used for constant blasting and the work has to be suspended from time to time so that the fume vanishes. Since NG based explosives are sensitive to friction, they cannot be handled mechanically at any stage from manufacturing to loading and as such, price-wise, they become costlier as compared to Slurry explosives. The capital cost for producing NG explosives is much more than that for Slurry explosives.

1·12 NG based explosives are the most reliable and long establish explosives used all over the world. In India, NG based explosives have been in use for many years. The shelf-life of NG based explosives is about one year in normal conditions and they can be stored for several years in cool-dry areas. NG based explosives enjoy the exclusive advantage of being usable under water as they have greater water résistance than Slurries. The density of NG based explosives can be varied according to requirements. They are considered to be the most reliable explosives in regard to initiation by means of a detonator. Even those explosives which are otherwise un-serviceable can be initiated by detonators. In India, consumers are more used to NG based explosives and there is an easy acceptability for them in the market. For small diameter uses, NG based explosives are considered to be more economical and dependable in terms of strength, cap-sensitiveness[*] and shelf-life.

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*This brief history is based on the material available in the publication "Imperial Chemical Industries: A History", Volume I, by W. J. Reader, Oxford University Press, London, 1970.

†Based on information supplied by the DGTD and also various memoranda received by the Commission.

Slurry Explosives

1·13 The recent trend all over the world however is in favour of Slurry explosives. Slurry Explosives are based on ammonium nitrate. Till recently NG based explosives were the only variety which was being used in Indian Mines. It is only in the recent past that slurry explosives have become available in the country and their use has been approved by the Director General of Mines Safety for certain applications. Slurry explosives are used in open-cast mining of coal and other ores. Since the recent technology for mining is based on open castmining, the use of Slurry explosives in the country is likely to increase in future to a great extent. Slurry explosives are gradually being permitted in India in underground and gassy coal mines also.

1·14 The manufacture of Slurry explosives is a simple mechanical function and it does not need any chemical process as in the case of NG based explosives. Slurry explosives are more safe. Slurry explosives can also be cap-insensitive and are therefore safe to handle. They can be packed easily and need not be kept in cartridges or magazines as in the case of NG based explosives. Slurry explosives can be mechanically loaded into bore-holes which results in cost-saving. They are more useful for large dismeter explosions. Since no major chemical process is involved in their manufacture, the capital investment in the case of Slurry explosives is comparatively less.

1·15 The shelf-life of slurry explosives is about six months. Slurries also do not enjoy water resistance and they cannot be used under water. It is reported that efforts are being made to make slurries usable even under water. Slurries cannot be manufactured in different densities as in the case of NG based explosives. Considerable research work is currently being undertaken to remove these limitations. Some of the major foreign groups have claimed to have already got over these limitations and produced Slurry explosives as good as or even better than NG based explosives[†].

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Properties of Explosives

1·16 A high explosive is a substance or a mixture of substances which, for the purpose of transport, handling and storage is in stable equilibrium. The equilibrium is upset if subjected to severe shock, resulting in a violent release of energy in the form of a shock-wave accomnaied by extremely rapid conversion of the explosive into a large volume of gases at high temperature and pressure. In practice, the necessary shock is provided by means of a detonator or detonating fuse.

1·17 As far as the user is concerned, the following properties of an explosives are of particular interests.

"(1) *Strength.*—This is a measure of the amount of energy released by an explosive on detonation and hence its ability to do useful work. The weight-strength denotes the strength of any weight of explosive compared with the same weight of blasting gelatine, and bulk-strength denotes the strength compared with an equal volume of blasting gelatine. Blasting gelatine is taken as the standard because it is the most powerful commercial explosive with characteristics that are well known.

"(2) *Velocity of Detonation*.—This is the rate at which the detonation wave passes through a cloumn of explosive and is of considerable importance since the shock energy of detonation increases rapidly with this velocity. The shock energy does most of the work when the explosive is used unconfined, *e.g.* in plaster shooting.

"(3) *Density*.—The density is important when selecting an explosive for a particular use. With a high density explosive, the energy of the short is concentrated—a desirable feature in tunnelling and mining operations in hard ground. On the other hand, when the output of lump coal from mine is important, it is advisable to use a low density explosive, which distributes the energy along with shothole.

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[*] Meaning—Sensitivity to explode by a detonator.

[†] For an attempt at more detailed comparison, see Appendix II.

"(4) *Water Resistance*.—Explosives differ widely in resistance to water and moisture penetration. Some explosives deteriorate rapidly under wet conditions, but others are desinged to withstand water for long periods. When blasting is to be done under wet conditions, a gelatinous explosive is preferable.

"(5) *Sensitivity*.—An explosive is required to be insensitive to normal handling, shock and friction, but must remain sufficiently sensitive to be satisfactorily detonated, and capable of propagating satisfactorily, cartridge to cartridge, and even over short gaps such as may occur in practice.

"(6) *Fume Characteristics*.—Explosives, which are to be used where ventilations is restricted, must produce a minimum of harmful gases in the products of detonation."[*]

1·18 The basic property required in an explosive is that it should detonate under controlled conditions and should be safe to use. In so far as gassy coal mines are concerned, the safety angle becomes predominantly important and special explosives are designed to ensure proper detonation under gassy conditions. For this purpose explosives are classified by the Chief Inspector of Explosives into various categories. From the safety angle, explosives used in coal mining are classified from pl to p5 & 5 being the safest but least in strength as compared to pl.

World Development

1·19 Certain aspects of the development of the explosives industry in the world, and specially those relating to the Imperial Chemical Industries (ICI) need to be noted as a background to the present enquiry. As already mentioned earlier, initially Alfred Noble attempted to establish companies for manufacturing dynamite in different countries of the world, starting with Germany and later in the U.K. and the U.S.A. Without going into the details of the history of these different efforts and the companies that were established, it may be noted that regionwise Noble gave considerable importance to the British market because not only did it have a vast internal development potential, but there was also the possibility of exports to its colonies. Indian Railways where specially mentioned in this connection.[†] Even though it was not possible for Noble to ensure joint control over various companies whose development he initiated, various devices for co-ordination and dividing markets and pooling of profits were used almost for the first time in the world by explosive producers. For many years before the first world war, these arrangements had settled almost into an established system. The European parties to the system were combined in an Anglo-German Alliance. This alliance worked in co-operation with the major explosives manufacturer in the U.S.A., M/s. E.I. du Pont de Nemoure & Co. The History of the I.C.I. referred to earlier gives various details about the development of these cartel arrangements and the manner in which they worked. As a matter of fact one can say that the history of the explosives industry and practices developed under the cartel arrangements provide almost a classic example of the manner in which various monopolistic practices were developed by large business groups, specially under German influence during this period. Arrangements to ensure that legal impediments such as these arising from the American Sherman Act could be got over were also a part of the understanding arrived at. It is not necessary for us to go into these details except to note that under these arrangements the Europeans agreed not to compete in the American market while the Americans agreed to keep out of Europe and most of Asia, Africa, Australia and the British Empire.

1·20 Even though the first war shattered the system that had been elaborately built up specially the Anglo-German combination as well as the realations of Du Pont with Germans, the relationships were to some extent attempted to be re-established after the war. A specially close relationship was built up between Du Pont and Noble Industries (U.K.), and the geographical effect of this was that Noble Industries kept out of the U.S.A. and Mexico, and Du Pont kept out of Europe and the British Empire except Canada. When the Imperial Chemical Industries (ICI) was formed in 1926 the control over colonial trade was an important consideration in its formation. In the letter sent out to shareholders in the merging companies, it was pointed out, "The British Empire is the greatest single economic unit in the world..........By linking the title of the new company to that unit, it is intended to lay emphasis upon the fact that the promotion of Imperial trading interests will command the special consideration and thought of those who will be responsible for directing this new company".* It is important to note in this connection that the basic approach oft he ICI combine was not radical innovation in terms of technology but the regulation throughout the world of competition between manufacturers in the same industry, with a view to protect profits in normal times and survival at moments of crisis. It may be noted in this connection that Du Pont's link with ICI which the latter inherited from Noble Industries were specially related to explosives, and intended to ensure the keeping out of each others' exclusive territories, which for ICI was the British Empire (except Canada).

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[*] "Explosives Year Book, 1976", Indian Explosives Ltd., Calcutta.

[†] See, W.J. Reader, Volume I, op. cit. page.

1·21 Two further points that come out from the published history of the ICI, which may be of some interest from the point of view of this enquiry, are as follows :—

(i) Firstly, the agreements were drawn up taking note of the anti-trust legislation in force in the U.S.A. so as to ensure that "no flaw should exist from this point of view and that no subsidiary documentary evidence such as correspondence between the two companies should indicate that the aggreement is worked in a way substantially different from the intentions indicated in the legal documents".† This suggests the limitation of documentary evidence when examining the working policies and specially cartel type arrangements as well as monopolistic practices of companies of this type.

(ii) Secondly, in the '30s' it came to be noticed that Governments even in tne British Empire might pursue policies which might force ICI to put up factories in their territories. It was thought that many overseas plants would be basically uneconomical but that was immaterial because overseas Governments were determined to have such plants.@

1·22 Two other minor points may also be noted. Canadian Industries Ltd. (CIL), a subsidiary of ICI, was to operate in co-operation even with Du Pont, but it was to stay in Canada and not spread out into other countries either "by laying down plants, exporting their products or licensing under their processes, unless both ICI and Du Pont believe it is advantageous to so spread out".‡ Another point regarding the manner in which it should operate in countries in the British dominions or in Latin America was indicated in internal correspondence as follows :—

> "Foreigners trading in a country like the Argentine are well advised to have on their side Argentinians standing well in social and poliitcal circles, if only to remove the doubts which generally exist as to the *bona fides* of the foreign enterprise. Many managers of foreign owned concerns expressed this view......that while it was a matter of little moment in past years, the developing economic nationalism makes it advisable to have well known and trusty natives associated with our concern".** These points can be usefully kept in mind when dealing with the present enquiry.

Establishment of the Industry in India

1·23 In India, explosives were imported by the Imperial Chemical Industries (ICI) and its predecessors for a long time. It was only around 1950 that the Government of India appears to have examined the possibilities of establishing indigenous manufacture of blasting explosives. A Mission was sent by ICI (U.K.) to India in 1949 to explore the possibility of such manufacture and certain proposals were made to Government on the basis of the Mission's report. A proposal from a Japanese firm, Nippon Kayaku Compnay Ltd., was also apparently considered. The possibility of manufacturing explosives in the ordnance factories also appears to have been examined. No details about the comparative merits of these different proposals are available to the Commission: what is known is that on the basis of such examination the Government came to the conclusion that the proposal from ICI was the most advantageous. On the basis of this conclusion, a "Declaration of Intention" was signed in November, 1953, by the Government of India, ICI (U.K.) and ICI (India). The main points of the Declaration were that manufacture in India of commercial blasting high explosives was to be established and for this purpose a public limited company was to be promoted ICI (U.K.) was to provide technical assistance and the share capital was to be taken up by ICI and the Government. ICI (U.K.) was also to provide a loan for the project. Of the initial equity capital, 80% was to be subscribed by ICI and 20% by the Government of India. On the Board of Directors of the proposed company, there were to be five nominees of ICI and one nominee of the Government of India. For technical assistance in the construction and operation of the factory, ICI was to be paid royalty @ 2½% of the gross annual turnover of the new company and this payment was to continue till a sum equal to 10% of the total capital expenditure incurred on the project (factory and housing) had been paid. For subsequent information to be provided during the operation of the factory) ICI was to be paid an additional royalty @ 2½% of the gross annual turnover. There was also a provision under which ICI (India) was to be appointed sole selling agent for the products manufactured by the new company on the basis of a 10% sales commission. It was further provided that having regard to the importance of the manufacture of accessories (safety fuses, plain detonators and electric detonators), as soon as possible after the blasting explosives factory had come into full production, ICI was to investigate the economies of the manufacture of accessories, and discuss with the Government of India the steps that may be necessary for the establishment of such manufacture.

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*ibid., page 469.

†ibid., Volume II,, page 52.

@See ibid., Volume II, pages 198-199.

‡ibid, page 217.

**ibid page 222.

1·24 An application for an industrial licence under the I (D & R) Act was submitted by ICI (India) Private Ltd., in December, 1953, and an industrial licence was issued in January, 1954. The licence was for the manufacture of 5,000 short tons per annum of commerical blasting explosives and the proper quantities required for such production of semi-products, *viz.*, nitric acid, nitro glycerine, ammonium nitrate and oleum. A new company, Indian Explosives Ltd., with Joint shareholding by ICI and the Government of India was established in 1954. A site at Gomia in Bihar was selected and it became available in August, 1955. Production of NG based explosives commenced in November, 1958. It appears that due to the impact of the Second Five Year Plan, the demand for explosives exceeded the initially licensed capacity even before the plant was formally opened so that the actual output began to exceed the licensed capacity even in the second year of the operation of the plant. IEL therefore applied in November, 1959 for substantial expansion of its licensed capacity from 5,000 short tons to 15,000 short tons per annum. A letter of intent to that effect was issued in February, 1960 and the industrial licence in April, 1960. Its subsequent licensed capacity and actual output in this field are shown in Table-I.

TABLE 1

Part I—Licensed Capacity of IEL

Year	Explosives (in tonnes)	Detonators (in million nos.)	Safety Fuses (in mill. coils)	Detonating Fuse (lakhs metres)	Urea (in lakhs tonnes)
1954	5000@				
1957			5·6		
1960	15000@		10·1		
1964	15000@	40·0	10·1		
1966	15000@	40·0	10·1		4·50
1971	15000@	40·0	10·1	28	4·50
1973	28000@	40·0	10·1	28	4·50
1974	36000*	40·0	10·1	28	4·50

@In short tons.

*Permitted by the Government recently.

Source: The applicant Company.

Part II—Production by IEL

	Production			
Year ending 30th Sept.	Explosives (tonnes)	Safety Fuse* (Million Coils)	Detonators (Million Nos.)	Urea (tonnes)
1958	199			
1959	2489			
1960	5851			

TABLE 1—*Contd.*

	Production			
Year ending 30th Sept.	Explosives (tonnes)	Safety Fuse* (Million Coils)	Detonators (Million Nos)	Urea (tonnes)
1961	8160	4·57		
1962	13021	7·05		
1963	12482	6·80		
1964	14236	3·72		
1965	18765	6·69		
1966	22930	7·36	7·4	
1967	22215	7·37	19·5	
1968	22944	5·84	16·6	
1969	26873	7·44	26·7	
1970	26338	6·99	37·2	147775
1971	30054	6·80	38·7	223426
1972	31327	7·89	43·1	373508
1973	22993	8·28	49·7	254662
1974	31463	8·86	53·2	363881
1975	35168	7·93	49·8	374137

*Including Detonating Fuse. Separate figures for Detonating Fuse as supplied by IEL are given in Part III.

Source: The applicant Company.

Part III—Monthly Production of Cord-tex Detonating Fuse from Start of Plant

(In metres)

	Production in					
	1971	1972	1973	1974	1975	1976
January . . .	..	..	102,000	296,400	346,800	241,500
February .	..	28,800	180,000	297,600	304,800	214,500
March . . .	..	58,800	205,200	301,200	279,600	..
April . . .	..	74,400	217,200	318,000	308,400	..
May . . .	..	91,200	258,000	238,800	300,000	..
June . . .	..	169,200	231,600	337,200	39,750	..
July . . .	..	111,600	216,000	343,200	154,200	..
August . . .	3,600	153,600	174,000	360,000	322,500	..
September .	..	194,400	145,200	304,800	129,000	..
October . . .	..	136,800	70,800	258,000	312,000	..
November .	..	152,400	225,600	352,800	292,500	..
December .	46,100	172,800	198,000	310,800	250,530	..
TOTAL	49,700	1344,000	2,223,600	3,718,800	3,040,080	456,000 (for 2 months)

Source: The applicant Company.

1·25 In the meanwhile, for the second Five Year Plan, a target of 5,000 tons of blasting explosives was laid down for 1960-61. For the Third Five Year Plan, the following targets were laid down for blasting explosives and related products :—

TABLE 2

Targets for Explosives and Accessories—Third Plan

Name of the Industry	Unit	1960-61		1965-66	
		Estimated Capacity	Estimated Production	Capacity	Production
(a) Blasting explosives . . .	000 tons	5	6	20	20
(b) Liquid oxygen explosives . .	,,	2	2	9	9
(c) Safety fuses . . .	million coils	7	2	25·0	25·0
(d) Detonators	million nos.			80	80

Source:—Third Five Year Plan, Government of India, Planning Commission, P. 506.

Apparently a review of the targets fixed for the Third Plan and capacities approved for these items was made some time in 1963 and the targets were revised as indicated in the following table :—

TABLE 3

Revised targets for Explosives and Accessories—Third Plan

		Original	Revised	Capacity licensed	Capacity for which letters of intent given	Remarks
Explosives .	Tonnes	25,000	45,000	19,650	20,000	Out of this about 9,000 tonnes capacity is for liquid oxygen
Safety Fuses .	Mil Coils	26	45	23·1	31·68	
Detonators .	Mil Nos.	120	216	128	114	

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Source: Government files.

It will be seen that the targets were revised significantly upwards. Various questions relating to this industry were also examined by Government in 1961 specially directing attention to preventing possible exploitation of users by the manufacturers. On the basis of this examination, it was apparently decided at one stage that no single manufacturer should be entrusted with the manufacture of blasting explosives, safety fuses or detonators to the extent of the country's total requirements and that more than one party should be licensed for the manufacture of these items.

Attempts to Introduce New Units

1·26 With this objective in view the Government began to consider proposals from other parties for building up capacity in this field. A number of letters of intent were issued. A list of parties to whom such letters of intent were issued and the capacities that were proposed for them is given in Table-4. It will be seen from this table that quite a large number of letters of intent were given. It is known, however, that none of these proposals materiliased, the only exception being that of IDL Chemicals. While it is not possible for us to go into all these cases with a view to examining why none of the other proposals materialised thus helping the predominant position of IEL in the industry to remain intact, we may give a few details about some of the proposals which have become available to the Commission in the course of this study as this would throw some light on the past development of the industry.

TABLE 4

*Details relating to some of the letters of Intent issued for the manufacture of Industrial Explosives**

Name of the Party	Period	Capacity	Technical Collaboration proposed
1. D.M. Khatau	April, 1962 March, 1963	6,000 tonnes Addl. 5,000 „	Du Pont, subsequently Montecatini of Italy.
2. Harshadray Pvt. Ltd.	March, 1963	6,000 „	N.A.
3. Indian Oxygeny Ltd.	March, 1963	9,000 „ (LOX)	..
4. Southern Warehouse Co.	April, 1964	6,000 „	N.A.
5. P.S. Sohi & Co.	April, 1964	6,000 „ (permitted)	J. Meissner of West Germany
6. Continental Plant & Machinery Co.	April, 1964	12,000 „ (ANFO mixture)	Atlas Chemical Industries & Ensign Bickford of USA.
7. Kothari Plantation Industries Ltd.	September, 1968	7,500 „	P.A. Poundercries Reunies De Belque (PRB)
8. IDL Chemicals Ltd.	June, 1967 (Licence)	15,000 „	Atlas Chemical Industries, USA, Subsequently Dow Chemical Co., USA, and currently Nitro Noble of Sweden.
	July, 1974 (Licence)	Addl. 7,500 „	
	October, 1975 (licence)	Addl. 7,500 „	
9. Narendra Explosives Ltd.	May, 1972 Feb. 1975 (Licence)	10,000 „	J. Messner of West Germany

*Excluding IEL.

Source: Government Files.

1·27 It appears that the item Industrial Explosives was put on the 'banned list' for licensing between December, 1961 and March, 1962, and again from August, 1965 to December, 1966.

1·28 An important partv to whom a letter of intent was issued was D.M. Khatau, a wellknown industrialist from Bombay, who was initially given a letter of intent for 6,000 tons of blasting explosives. He was proposing to set up the undertaking in collaboration with M/s. E.I. Du Pont De Nemours and Company Inc. (Du Pont) of U.S.A. It appears that the proposal initially was that the foreign collaborator should be given a majority participation to the extent of at least 66⅔% the import of capital equipment being covered by foreign capital investment. The scheme involved import of capital equipment of the value of Rs. 1·5 crores and that of raw materials of the value of Rs. 30 lakhs per annum. At the Government was not willing to permit majority participation to the foreign company and also to initally permit a capacity for blasting explosives to the extent of 15,000 tonnes, the proposal apparently fell through as M/s Du Pont lost interest in the proposal. They apparently thought that without at least a capacity of 15,000 tonnes, the unit would not be economical. They also wanted majority participation so as to have control over the proposed unit. When this proposal fell through (probably) sometime in 1963), Mr. Khatau came up with a proposal for collaboration with another foreign firm, M/s. Montecatini of Italy. Apparently this proposal also did not materialise. As no appropriate foreign collaboration was available, it was decided in 1964 to revoke the letter of intent.

1·29 Another party which was permitted to enter the industry as a part of the Government's policy to encourage competition was Continental Plant Machinery Company Pvt. Ltd., which was granted an industrial licence for detonators and detonating fuse in May, 1962. Initially this company was proposing collaboration with a Czechoslowak firm. Later they suggested collaboration with M/s. Atlas Chemical Industries of U.S.A. The company also applied for a licence to produce explosives based on ammonium nitrate to the extent of 12,000 tonnes per annum and for this purpose the collaboration of Engsign Bickford (also of U.S.A.) was proposed. It was stated in February,

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*Report of the "Industrial Licensing Policy Inquiry Committee"; p. 42. It appears that the industry was again put on the 'banned List' subsequently also from time to time, but the details are not available to the Commission.

1965 that the applicants' proposal was that the two foreign companies would jointly contribute 50% of the equity for the new project, and of the remaining 50%, 25% would be provided by the applicants and 25% will be thrown open to the general public. The Government apparently agreed in December, 1965 only to 49% equity being held jointly by the two foreign collaborator concerns. A further difficulty apparently faced by the foreign collaborators was that when a senior official of Atlas Chemicals Industries visited India in July, 1963, he was told by the Directors of ICI that they were almost sure of getting the manufacturing licences for detonators and detonating fuse (for the details about IEL'S proposal re: detonator, see below). With the IEL already having established a secure position in the explosives market in India at that time, Atlas Chemical apparently felt that the new company in which they were supposed to collaborate would be handicapped from its inception. The IEL, a subsidiary of ICI, would be in a position to offer a full package of explosives and accessories while the new company would have only detonators and detonating fuse to offer. They, therefore, made it clear both to the Indian party and to the Government of India that if ICI (*i.e.*, its subsidiary) were given a licence in detonators and detonating fuse, they would lose interest in the proposed collaboration. Atlas further suggested that the least that could be done to encourage the new company was not to grant a licence to the ICI subsidiary for detonating fuse-apprently so that the new company will have some special advantage to offer as against the already well established producer in the field. One result apparently of this discussion was that Continental Plant was given the letter of intent for the production of blasting explosives. It appears, later on, Atlas Chemical decided to collaborate with Indian Detonators Ltd. instead of with Continental Plant. Continental Plant, therefore, was notable to proceed with its proposals.

1·30 M/s. Indian Detonators Ltd., Hyderabad, initally entered this field with a licence for detonators issued in January, 1961, for a capacity of 64 millions. Within a few days of the grant of this licence, IEL applied for an industrial licence for the production of detonators with a capacity of 80 millions per annum. The fact that IEL had refrained from setting up such capacity earlier, even though this was a part of the originally agreed approach and imports from their parent company continued, resulted in the Government initially taking an unfavourable view of this proposal. It was felt that this company, though working in partnership with Government, had consistently delayed applying for indigenous manufacture until it found that some other Indian party had put in an application. It was also pointed out that it had been observed that the company built up capacity in such a way as to keep out other manufacturers. In order to carry out the Government directive that exploitation of the market by any one party should be prevented, this application of IEL was at first rejected in June, 1962. The matter was, however, reconsidered later. IEL pointed out that the probable requirements of detonators by 1965-66 would be about 140 million detonators per annum. Imports were running at Rs. 1·1 crores c.i.f., which may increase to Rs. 2·1 crores within a short time. As the production unit at Gomia had already been organised for blasting explosives, it would not take too long for IEL to undertake production of detonators and this would be much earlier than any alternative manufacturer, who would have to start from scratch. Attention was also drawn to the fact that the production of accessories was included in the original "Declaration of Intention". It was further stated that the design and cost reports had been prepared as early as July, 1958 and the project was under continuous examination and this was within the knowledge of the Government Director on IEL's Board. While IEL was concentrating initially on setting up the explosives plant, attaining full capacity and increasing production further to meet rapidly expanding demand, project work on the detonator's project was going on. IEL therefore protested that, just because another party, with no previous record in this field in India, had been granted a licence, IEL should not be prevented from entering the field. It was further stated; (emphasis added).

> "By its action in refusing our application the Government had defeated one of its prime objects in signing the Declaration of Intention i.e. to secure the collaboration and benefit of the research and the development of probably the most progressive manufacturer in the world in the detonator field. Detonator technology is acknowledged to be one of the most difficult throughout the whole chemical field and most particularly in relation to the types needed for use in connection with "permitted" explosives in gassy coal mines. While we shall be producing the most up-to-date types of these explosives at Gomia, *we shall be unable to accept responsibility for the performance and safety of detonators manutactured by others which are used in conjunction with out explosives.*

> "IEL seeks no monopoly position in the manufacture of explosive and detonators but believes it can supply the nation with the highest quality products at prices keenly competitive with any other producer. It has loyally implemented both the letter and the spirit of the Declaration of Intention signed by the Government and could still be in production of

> detonators at least one or two years ahead of anyone else, thereby effecting a very considerable saving of foreign exchange."*

As a result of further discussions, in April, 1963 the Government of India informed IEL that the Government was agreeable to grant them a licence for the manufacture of detonators and a licence was actually issued in July, 1964, for a capacity of 40 million. It was also indicated that the Government was agreeable to the grant of a licence to IEL for the production of detonating fuse including the chemical PETN required therefore. As mentioned earlier, this was apparently one reason why Atlas Chemicals was discouraged at this time from entering the field in collaboration with an Indian party.

1·31 The difficulties experienced by a party attempting to enter this field are well illustrated by another example, viz., that of Kothari Plantations and Industries Ltd. The application had been initially made by the Bikaner Commercial Company Ltd. in May, 1963, for an industrial licence for manufacturing 7500 tonnes per annum of industrial explosives in technical collaboration with M/s. P.A. Poundereries Reunies De Belque (PRB) of Belgium. There was an earlier application of the company for an industrial licence for manufacturing detonators. The initial idea was to float a new company for implementing these projects. In May, 1964 the Government told the company that there was no scope for the manufacture of detonators. In August, 1964 the company was asked by the Government to secure the sample of the type of explosives proposed to be produced in India from the foreign collaborators and get these approved by the Chief Inspector of Explosives. The Company experienced considerable difficulties in importing and testing these samples. While the collaborators were willing to offer the samples free of cost, the shipping charges were quite considerable, the minimum quantity acceptable to the shipping lines being 100 tonnes. The company also had to apply for permission to the Chief Controller of Imports. The company did this in November/December, 1964. Arrangement had also to be made for the storage of these products as the company had no licence required for this purpose. It appears that even when all such arrangements had been made by the company in spite of many difficulties, and the Chief Inspector of Explosives was satisfied about the arrangements made for imports, permission to import the samples was not forthcoming from the concerned Government authorities. After waiting for a long time, the shipping lines which had agreed to take the samples revoked their part of the arrangements as they found that restrictions placed on ships carrying explosives were inconvenient. Even though the Belgian collaborators attempted to make alternative arrangement, it appears that no import licence was received by the Company upto December, 1966, *i.e.*, two years after their application. In the meanwhile, as the applicant company found that market conditions were not favourable for floating a new company, Government permission was sought to transfer these projects to an associate company, Kothari Plantations. The permission which was applied for in July, 1965, was granted in May, 1966. An Industrial licence was issued to the company in September, 1968. The Company, however, appears to have found that the market conditions were unfavourable to their going ahead with the project. The Company had earlier already drawn the attention of the Government in September, 1966, to a news item that IEL were proposing to expand their production from 20,000 tonnes to 40,000 tonnes and enquired whether this was likely to be approved. It appears that financial institutions were also doubtful about the marketability of the product and hence were not willing to advance loans. In 1969, therefore, Kothari Plantation decided to defer the implementation of the project. Its licences in this field were revoked in March, 1970.

1·32 The last example, which would illustrate the problems that arise in the way of the development of new units in the explosives industry is that of IDL Chemicals, the only concern which has upto now succeeded in establishing itself in this field in addition to IEL. This company was initially established in the name of Indian Detonators Ltd. It was set up initially for the production and sale of detonators and other accessories. In 1961-62, this company entered into an agreement with Komplex Trading Company of Hungary, for collaboration in the production of detonators, etc. The factory for this line of production was established near Hyderabad and was completed by the end of November, 1964. Indian Detonators then began to explore the possibility of manufacturing explosives. The idea was to make a beginning with non-permitted explosives. It envisaged leaving the production of permitted explosives of IEL at least for the time being. Initially the proposal was to instal capacity for the manufacture of 6,000 tonnes of NG based explosives, increasing it to about 12,000 to 15,000 tonnes within the next five to seven years. The IDL's plan was to import bulk explosives to begin with from Yugoslavia at an economical price and to make an entry in the market by cartridging and packing such explosives. Their expectation was that the import cost as well as the further processing cost would totally amount of Rs. 3750/- per tonne as against the then consumer price charged in South India by IEL of Rs. 4,500/- per tonne. The Yugoslav, were apparently agreeable to supply 2000 tonnes of bulk explosives for a period of three years. They were also ready to supply plant and machinery and technical know-how for the manufacture of these explosives against rupee payments. Apparently an alternative to this was suggested. Instead of importing bulk explosives (or master mix) from Yugoslavia, the possibility of obtaining mast mix from IEL for some years was suggested and explored. The composition of the master-mix and the price were also discussed in the early months of 1965 and at one stage IEL apparently was willing to co-operate in the development of this second unit for the production of explosives. However, ICI (U.K.) objected to IEL's supplying any information to the new company on processing the master-mix. It was, therefore, suggested that the master-mix may be supplied "on the strict understanding that it is to your specification and that, apart from satisfying ourselves that the product is safe and can be transported, no technical service or after sales service on mixing, cartridging, etc. will be given by IEL." IDL therefore dropped the proposal of obtaining master-mix from IEL. According to IDL, this behaviour of IEL "stalled IDL going ahead with their proposals from Yugoslavia to import the master-mix (sic)".

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*I.E.L.'s letter dated 6th July, 1962 to the Secretary, Ministry of Commerce & Industry.

1·33 In the meanwhile, IDL were attempting to develop technical collaboration with Hercules Powder Company of USA, a major producer in the explosives industry in America. The proposal was to produce 3,000 tonnes NG based explosives at Hyderabad and 12,000 tonnes of A NFO and NCN explosives at Hyderabad, sindri and Rourkela. A letter of intent was issued to them in June, 1965, for a capacity of 10,000 tonnes. This was amended to 15,000 tonnes in September, 1965. Later IDL appear to have decided that technical collaboration with Atlas Chemical Industries would be better than that with Hercules Powder Company. IDL also had explored the possibility of obtaining technical know-how from Hungary for the production of explosives. This idea was later dropped. The proposal for foreign collaboration with Atlas Chemical was approved in November, 1966. After the samples imported from the collaborators were examined, the industrial licence was issued in June, 1967. The import of plant and machinery was approved in March, 1968. the permission of the Chief Inspector of Explosives to start commercial production and distribution of non-permitted explosives was obtained in August, 1970, and production of non-permitted explosives commenced in 1971. The production of certain permitted explosives was also taken up in 1972. In the meanwhile, Atlas Chemical was acquired by the I.C.I. group and IDL therefore decided to seek new foreign collaboration. A collaboration agreement with M/s. Dow Chemical Company, U.S.A. was sought and approved by Government. This was later given up as Dow-decided to get out of the explosives line. IDL Chemicals, has therefore recently entered into collaboration arrangement with M/s. Nitro Noble of Sweden. The data about licenced capacity and actual output of explosives by IDL Chemicals from its inception are given in Table-5.

1·34 It should be noted that while initially IDL was thinking of producing both NG based explosives and other types—what are called Slurry type of explosives, it later gave up the idea of producing NG based explosives and concentrated on slury based ones. While it has been claimed by IEL that they were the first to introduce slurry based explosives in India, their main focus upto now has been on NG explosives. IDL claims to have developed slurry based explosives exclusively and it also claims that, while obtaining certain technical know-how from the foreign collaborators at different stages, it has developed genuine indigenous competence in the field and has introduced many innovations and attained genuine indigenous technoligical experience. It may also be mentioned that according to the Directorate General to Mines Safety, it was IDL Chemicals which succeeded in developing slurry based explosive for use in underground gassy coal-mines and this was a pioneering innovation in the whole world.

TABLE 5

Licensed capacity and production of Explosives and Accessories by IDL Chemicals Ltd.

PART I—*Licensed capacity*

Year	Safety fuse (Million Metres)	Detonator (Million Nos)	Detonating fuse (Million Metres)	Explosives (Tonnes)
1961		64		
1962		64	6·10**	
1964	87·78*	128	6·10	
1967	87·78	128	6·10	15,000
1972	87·78	192	12·10†	15,000
1974	87·78	192	12·10	22,750
1975	87·78	192	12·10	30,000

*12 million coils. **20 million feet. †12,100 kms.

Part II—Production

Year	Safety fuse (Mil. Met.)	Detonators (Mil. Nos.)	Detonating fuse (Mil. Met.)	Explosives* Permitted	Non-permitted tonnes	Total
1970—71	12·28	76·60	5·37			1161
1971—72	8·34	69·75	5·54	7	1468	1475
1972—73	10·16	81·39	4·75	308	2494	2802
1973—74	15·28	78·53	4·27	2224	2357	5581
1974—75	6·61	81·00	5·95	2675	3107	5782 **(5863)
1975				5120	4621	9741

*Relates to Calendar years 1970 to 1975.

**Total Production.

Source: IDL Chemicals Ltd.

The Present Situation

1·35 This review of the growth of the explosives industry in India thus shows that Indian Explosives Ltd., a subsidiary of ICI, has been the Pioneer in the development of the industry and has dominated the field right from the inception of the industry. Beginning its production in 1958, it has increased its production capacity as well as actual output from year to year. Its licensed capacity has increased from 5,000 short tonnes at the beginning to 36,000 tonnes now in terms of blasting explosives. Through most of the period it has had an actual capacity much higher than the capacity licensed and its output has also been much larger. Even in respect of other items like detonators, its production has been larger than the licensed capacity. The only other unit which has been able to make an entry in the industry, viz., IDL Chemicals, started with the production of detonators, but its output is for lower than its licensed and installed capacity. In 1975 it produced only 81 million detonators as compared to a licensed and installed capacity of 192 million. Its production of other items like detonating fuse and safety fuse is similarly lower than the licensed and installed capacity. Its entry in the production of blasting explosives has been only recent. It has introduced a new type of explosives, namely Slurry explosives, in the country, but its output continues to be lower than its licensed and installed capacity. Thus in the year 1975, its production was only 43% of its licensed capacity of 22,750 tonnes.

Other Types of Explosives

1·36 In addition to the types of explosives indicated above, two other types of explosives are also being produced in the country, namely, liquid Oxygen Gas (LOX) and Ammonium Nitrate (explosive grade) used along with Fuel Oil (ANFO). Liquid Oxygen explosives is prepared by seeking a cartridge of cellulosic absorbent in liquid oxygen. The cartridge is manufactured by M/s. Indian Oxygen Ltd. at their factory at Ranchi and liquid oxygen is obtained from their own and/or the customers air separation plants near mining areas. The firm's current cartridge manufacturing capacity is equivalent to 3,000 tonnes of explosives per annum. It is stated that no industrial license is required for the manufacture of this product at present. The production of LOX by Indian Oxygen Ltd. during the past five years is given below :

TABLE 6

Production of Explosives

Year ended	Quantity of LOX (in terms of tonnes of explosives)
1	2
1972	1,821
1973	1,556

1	2
1974	1,401
1975	1,455
1976	1,558

Source: Indian Oxygen Ltd.

The Fertilizer Corporation of India Ltd., is producing Ammonium Nitrate of explosive grade and marketing it. The current capacity is 9,000 tonnes per annum and FCI has developed a market for this product to the extent of 6,000 tonnes.

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CHAPTER II

THE APPLICANT COMPANY

I.C.I. (U.K.)

2.01 As indicated earlier, the applicant Company is a subsidiary of the Imperial Chemical Industries (U.K.). The ICI (U.K.) was formed in 1926 by amalgamating the then four leading British Chemical Companies, viz., Nobel Industries Ltd., Brunner, Mond & Company Ltd., the British Dyestuffs corporation Ltd. and the United Alkali Company Ltd. The formation of ICI represented the largest such operation undertaken in Great Britain up to that time. The merged companies could together tackle any branch of the chemical industry. ICI has its main subsidiaries in England, Scotland, Argentina, Australia, Canada, West Germany, Netherlands, India, Kenya, Malaysia, Pakistan, South Africa, and the United States of America; and has principal associated companies in England, Australia, Belgium, Bermuda, India, South Africa and United States of America.

2·02 At the time of the amalgamation in 1926, the constituent companies manufactured products such as acids, alkalis, ammonia, chlorine, dyes, explosives, fertilisers, leather-cloth, non-ferrous metals and paints. Since then the Group has expanded into such fields as fibres, petro-chemicals, plastics, pharmaceuticals, insecticides, weed-killers and wallcovering, and its products are sold to a wide range of industries including the textile, agricultural, engineering, chemical, building, motor, aircraft and plastics industries. Although the U.K. still accounts for the major part of the Group's manufacturing assets, more than half the goods sold overseas are manufactured by subsidiaries abroad, the remainder being mainly goods exported from the U.K. Manufacture overseas is undertaken on a large scale by subsidiary or associated companies in Australia, Canada, the United States of America, Western Europe, India, South Africa and the Argentina. Altogether the overseas interests of the Group comprise subsidiary or associated companies in fifty-five countries and there are selling agents in many others.

2.03 The Group turnover (excluding Carrington Viyella Ltd. and its subsidiaries acquired during 1971 amounted to £ 1,524 million during the financial year 1971. The Company employed, on an average, 1,37,000 employees in the U.K. in 1971, and 53,000 overseas. Consolidated fixed assets employed as on December 31, 1971, amounted to £ 1,157 million.*

The Structure of the Applicant Company

2·04 As already mentioned earlier in this Report, Indian Explosives Ltd. was registered in 1954 on the basis of a "Declaration of Intention" which had been agreed upon in 1953 between the Government of India on the one side, and ICI (U.K.) and ICI (India) on the other, for the purpose of setting up production facilities in India for the production of blasting explosives and related items. The capital structure initially was one where 80% of the share capital was held by ICI (U.K.) and 20% by the Government of India. This position continued till 1968 when fresh share capital was issued by the Company for the purpose of setting up a fertiliser plant near Kanpur. As a result of the change in the structure of equity holding at that time, the equity held by ICI (U.K.) was reduced to about 51%. The present pattern of shareholding in the company is given in *Table* 7. This will show that the Government of India and public sector financial institutions control a little less than 20% of the equity, while non-resident shareholders control a little less than 60% including 51% controlled by ICI (U.K.). About 20% of the equity is held by private individuals and companies in India.

TABLE 7

The Shareholding in IEL

Part I—Pattern of Shareholding

Nominal Capital	2,50,00,000 Equity shares of Rs. 10 each =Rs. 25,00,00,000	Paid up Capital	2,14,82,000 Equity Shares of Rs. 10 each=Rs. 21,48,20,000

	No. of Shares	Percentage to total
1. **Non-Resident**		
(i) ICI (U.K.)	1,09,60,000	51·02
(ii) National & Grindlays Bank, London . .	2,00,000	0·93

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*The information is based on Jane's MAJOR COMPANIES OF EUROPE, 1973, edited by Lionel F. Gray and Jenathan Love, Simpson Low, Marston & Co. Ltd., London, (pp.c 245-247).

TABLE—7- Contd.

1	2	3
(iii) IFC Washington	17,00,000	7.91
(iv) Individual (Grouped)	27,196	0·13
		59·99
2. Resident		
(a) The President of India	27,40,000	
(b) Public Financial Institutions		
(i) Life Insurance Corpn. of India	4,49,815	2·07
(ii) United Trust of India	1,84,180	0·86
(iii) Nationalised Banks & General Insurance Companies (Grouped)	8,89,841	4·14
		19·82
3. Others comprising Indian Companies, Indian Resident—Individuals etc.	43,36,968	20·19
4. Total	2,14,82,000	100·00

Part II—Ten Major Shareholders in IEL

Name	No. of shares	Percentage to total
(i) Imperial Chemical Industries Ltd., London	1,09,60,000	51·02
(ii) President of India	27,40,000	12·75
(iii) International Finance Corpn., Washington	17,00,000	7·91
(iv) Life Insurance Corpn. of India	4,43,815	2.07
(v) New India Assurance Co. Ltd.	2,94,621	1·37
(vi) National & Grindlays Bank Ltd., London	2,00,000	0·93
(vii) Unit Trust of India	1,84,180	0·86
(ix) The Oriental Fire & General Ins. Co. Ltd.	101,108	0·47
(x) Bank of India	70,187	0·33
		78.37

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Source: The applicant Company.

2·05 The applicant company has admitted interconnection with the following companies :—

(i) The Alkali & Chemicals Corporation of India Ltd.
(ii) Chemicals & Fibres of India Limited.
(iii) Atic Industries Limited.
(iv) ICI (India) Private Limited
(v) Ciba of India Limited
(vi) Cibatul Limited
(vii) Cynamid India Limited
(viii) Atul Products Limited
(ix) Ameer Trading Company

The basis on which interconnection is admitted has been explained as follows :—

"Imperial Chemical Industries Limited holds more than 50% shares in Indian Explosives Limited, the Alkali & Chemical Corporation of India Limited, Chemicals and Fibres of India Limited, ICI (India) Private Limited and Atic Industries Limited and as such are interconnected undertakings.

"Indian Explosives Limited also appears to be interconnected with Atul Limited which holds 50% of the equity in Atic Industries Limited. On the basis of data made available to the Company it appears that Cynamide India Limited, Ameer Trading Corporation Limited and Cibatul Ltd. are undertakings interconnected with Atul Limited. It is also believed that Cibatul is interconnected with Ciba of India Ltd."

2·06 The Company is managed by a Board of Directors consisting of seven Indian and four British Directors. Out of these eleven directors, four work whole-time for the company. The Chairman of the company is the Chairman of ICI (India). There are two Government nominees and one representative of public financial institutions on the Board.*

2·07 The Managing Director of the company looks after the two divisions of the Company, *viz.*, the Explosives Division and the Fertiliser Division. The plant for the production of explosives is located at Gomia in Bihar and the plant for the production of fertilisers is located near Kanpur in Uttar Pradesh. As both the units are large in size, there are elaborate management organisations both at Gomia and at Kanpur. The Company has claimed that it is a professionally managed Company and the technical and managerial Competence of the staff is claimed as a major source of strength. "All staff including the members of the Board of Directors are selected on the basis of their professional qualifications and experience and the specialists in their respective areas of responsibility, be it engineering, chemistry, accounts or general management. Professional competence of the staff is sustained and further developed through an extensive system of training and management development programmes. *Our access to the ICI Organisation in U.K. is of considerable help in this respect*". (Emphasis added)

Foreign Collaborations

2.08 The Company established the manufacture of blasting explosives on the basis of a technical collaboration agreement with its parent Company, namely, the ICI Ltd. (U.K.). The agreement was for a period of 20 years from 1-6-1955; it has now expired. The agreement provided for payment of royalty at the rate of 2.5% of the gross turnover till a sum equivalent to 10% of the total capital expenditure incurred on the project was paid, and a further royalty at the rate of 2.5% of the gross turnover during the life of the agreement, *i.e.*, upto 1-6-1975. In addition it also provided for reimbursement in sterling of all out-of-pocket expenses. For the manufacture of detonators as well as safety fuse, the company entered into technical collaboration agreement with its parent Company, involving a royalty at 5% on the net sales value of high quality fuse from the date of the sale of first one lakh coils for a period of 15 years (*i.e.*, upto September, 1975) and reimbursement in sterling of design and engineering charges and out-of-pocket expenses, upto a maximum of Rs. 1·5 lakhs in the case of detonators, and Rs. 5 lakhs in the case of safety fuse. No royalty payment was involved for the manufacture of detonators and common fuse. Both the agreements were for a period of ten years and have now expired. The Company also entered into technical collaboration agreement with its parent Company for the manufacture of fertilisers. This agreement is valid for a period of ten years from May 3, 1967. In addition, the company is having a number of licence agreements with its parent Company and three other foreign companies. These agreements involve lumpsum payments of £ 1103,500 and £ 75,000. In addition to this, the Company has also entered into a technical collaboration agreement with its parent company on 30th December, 1971 for its Nitrocellulose Plant, involving a lumpsum capital payment in Sterling, equivalent to Rs. 4.5 lakhs in three instalments. The details of the various collaboration agreements may be seen in Appendix III.

2·09 It will be seen that even though ICI (U.K.) held 4/5th of the equity in the initial period and continues to have controlling equity right upto now, for every transfer of technical know-how, separate levies have been laid down. The terms of collaboration appear to have been more stiff in the earlier years, compare, for example, the collaboration relating to blasting explosives with these in respect of detonators and fertilisers. This is possibly due to the fact that other collaborations had already become available for these products by the time the proposal came up. It may also be noted that when the proposal for setting up the manufacture of detonators was initially made in 1961, it had been suggested that for the supply of technical information for the design, construction and operation of the plant and for continuing development information, a royalty at a rate of 3½% of the net sales value would have to be paid to ICI (U.K.) for a period of 10 years. It was also suggested that the cost of the design and out of pocket expenses would amount to £ 80,000 (rupees 10·7 lakhs)†. When it was observed that the Government was not very enthusiastic about IEL's taking up the manufacture of detonators, these terms were diluted to a research fee calculated @ 2% of the net sales value and of the design charges and out-of-pocket expenses amounting to £ 42,000**. Finally what was accepted was reimbursement of deisgn charges and out of pocket expenses to the extent of about Rs. 1·5 lakhs and no royalty payments.

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*This information is based on the situation as it prevailed in 1975.

†IEL's letter dated 24th July, 1961, to the Ministry of Commerce & Industry, Government of India.

**IEL's letter dated 9th December 1961 to the Ministry of Commerce and Industry, Government of India.

The Development of the Explosives Division

2·10 As mentioned in the previous Chapter, Indian Explosives was the pioneer in India in the production of blasting explosives. Data given in Table 1, *Part II* above show a remarkable rate of growth in production, which increased from less than 2500 tonnes in 1958 to over 35,000 tonnes in 1975, an annual growth rate of about 77%. The only major set back to production of blasting explosives was in the year 1973 when there was a serious accident. However, the difficulties resulting from the accident were soon overcome and the production of blasting explosives picked up and further increased. As regards the composition of their production, explosives of small as well as large diameter were introduced from the beginning of production. What are called permitted explosives were introduced only from 1963-64 with P-I being introduced in that year, P-3 from the next year and P-5 only from 1969-70 (*See Table* 8). Explosives other than NG were introduced from 1961-62 and slurry explosives are claimed to have been introduced from 1968-69. These were large diameter explosives.

2·11 IEL's entry in the field of detonators has already been dealt with in the a earlier Chapter. They were licensed a capacity of 40 million detonators and set up the plant and started production in 1966. In the case of safety fuse, an industrial licence was issued in April 1957 for 5·6 million coils per annum and the capacity was increased to 10·1 million coils in November 1960. Production commenced in 1960.

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TABLE 8

Production of different types of Explosives by IEL since inception

	TONNES							
	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66
N.G. EXPLOSIVES								
Non-Permitteds :								
1. Small dia-meter	1852	4955	7200	11453	9883	10939	12925	13822
2. Large dia-meter	637	896	960	1420	1889	1297	1982	2609
3. Total	2489	5851	8160	12873	11772	12236	14907	16431
Permitteds :								
4. P-1 Category	..	...	...	1	...	1336	2609	4078
5. P-3 Category	...	...	...	1	...	1	408	1289
6. P-5 Category	..	...	...	..	...	..	..	..
7. Total	..	..	..	2	..	1337	3017	5367
8. Total N.G. Explosives	2489	5851	8160	12875	11772	13573	17924	21798
Slurry Explosives :								
9. Large dia-meter	..	..	..	..	..	..	..	..
Other Explosives :								
10. Large dia-meter	..	...	...	146	710	663	841	1132
11. Small dia-meter	..	..	..	..	..	..	..	..
12. GRAND TOTAL	2489	5851	8160	13021	12482	14236	18765	22930

TABLE 8—*Contd.*

	TONNES								
	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
N.G. EXPLOSIVES									
Non-permitteds :									
1. Small dia-meter	11981	11849	14352	13627	15769	17521	13337	16512	17859
2. Large dia-meter	2333	2749	3308	2025	1921	1653	1772	1897	2041
3. Total	14314	14598	17660	15652	17690	19174	15109	18409	19900
Permitteds :									
4. P-1 Category	5074	4985	4932	5080	5549	5288	3503	4973	6359
5. P-3 Category	1925	2251	3063	3242	3927	3408	4229	4243	4147
6. P-5 Category	..	..	3	30	160	289	492	1335	2731
7. Total	6999	7236	7998	8352	9636	8985	8224	10551	13237
8. Total NG Explosive	21313	21834	25558	24004	27326	28159	23333	28960	33137
Slurry Explosives									
9. Large dia-meter	..	..	58	780	1242	1569	1316	1613	1254
Other Explosives :									
10. Large dia-meter	902	1110	1067	1554	1486	1599	1300	890	777
11. Small dia-meter	..	..	..	..	..	..	44	..	..
12. GRAND TOTAL	22215	22944	26783	26338	30054	31327	25993	31463	35168

Source : The applicant Company.

2·12 IEL applied in April, 1963, for an industrial licence to manufacture 15 million feet of detonating fuse and 96 tonnes of PETN in technical collaboration with ICI (U.K.). In May, 1964, IEL was informed by the Government that it will not be possible to issue a licence for the manufacture of detonating fuse. However, in July, 1969, IEL submitted a proposal to the Chief Inspector of Explosives (CIE) for permission to manufacture detonating fuse, an item classified under the Explosives Rules as "Explosive Class 6 Division 2." *CIE asked IEL to supply a photostat copy of any letter of intent which must have been obtained from the Ministry of Industrial Development permitting the manufacture of detonating fuse. IEL replied that such permission was not required as their proposal was to manufacture a new article without obtaining a licence under the Act on the basis of the liberalised industrial policy released *vide* Press Note No.2(14)/Lic./Pol./66 dated 4th June, 1968. The liberalised industrial policy announced by the Government in June 1968 had granted industrial undertakings the freedom to diversify their production by taking up the manufacture of new articles without obtaining an industrial licence provided that no additional plant & machinery was installed except indigenously procured minor balancing equipment, no additional foreign exchange expenditure was involved and the diversified production did not exceed 25% of the total production. In view of this relaxation IEL apparently not only decided to take up the manufacture of detonating fuse as a diversification of their safety fuse production, but also went ahead with the construction of the plant without waiting for the approval of the CIE. According to IEL, the Scheme was discussed with the CIE as early as March 1969 "and his verbal approval obtained for the design and construction of the building in conformity with the Explosives rules and regulations. In July, 1969 we also informed CIE in writing that the construction of the plant has been started**. However, the CIE, when approached for formal approval in September 1969, raised the question whether the Ministry of Industrial Development has authorised the Scheme. This view was also reiterated by the CIE as late as in April, 1970. The CIE also referred the matter to the Ministry of Industrial Development. IEL submitted to the Government that "had it not been for the necessity, in our instance, of obtaining technical clearance of the CIE required under explosives rules, we would have completed construction of the plant and also started production before the end of the last year and if we were to abandon our scheme at this stage, the financial loss to our company will be substantial as more than 60% of the project cost of Rs. 7 lacs has already been incurred or committed. Moreover, the extension of the fuse plant building has nearly been completed and this firm order placed for the major plant and equipment."* The Ministry referred to the revised industrial licensing policy of the Government announced in March 1970, which placed many restrictions on the growth of larger houses and suggested that IEL should obtain a licence for undertaking the manufacture of detonating fuse.** IEL had already claimed that as the diversification had been carried out strictly as per the Government's liberalised policy announced in June 1968, and since effective steps had been taken to proceed with the project, the restrictions in the latest policy statement should not apply in this instance. IEL further reported in May, 1970, that what was proposed was the manufacture of a relatively small quantity of detonating fuse by diversifying production of their safety fuse plant, for which IEL already had a licence. "With changes in mining practice, and the increase in the number of fuse manufacturers, production of safety fuse at Gomia is declining, and is well below the licensed capacity. The object of diversifying production is to utilise the resulting idle capacity and surplus manpower**. Further, it was pointed out, the proposal to manufacture detonating fuse was discussed in detail by the Board of Directors in April, 1969 and the Board gave approval "with the full knowledge of the two Government directors concerned". In July, 1969 the CIE was officially informed that construction of buildings had started. As there was no official response for many months, work on modification to plant and buildings was largely completed. IEL therefore requested a reconsideration of the decision to insist on an industrial licence application. In this connection, it may also be noted that, for the process of manufacturing detonating fuse, the detailed drawings and process information were obtained from the ICI's Nobel Division free of Cost. As a result, no permission for collaboration etc. was necessary.

2·13 The Government, apparently after giving further thought to the matter, decided to grant the necessary permission. In September, 1970, the CIE was informed by the Ministry of Industrial Development that "on reconsideration Government have no objection to a permission being granted to M/s. Indian Explosives Ltd. for the manufacture of detonating fuses in their undertaking at Gomia under the Explosives Rules, 1940." As according to the revised licensing policy a licence was required, IEL were advised to apply for an industrial licence. In November, 1970,

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*IEL's letter to the Ministry of Industrial Development dated March 14, 1970 and the letter from the Department of Explosives to the IEL dated 9th April, 1970.

**Letter from the Ministry of Industrial Development to IEL dated 24th March, 1970.

*IEL's letter to Ministry of Industrial Development dated 29th May, 1970. It may also be noted in this connection that as indicated in Table I part II of this Report, the production of safety fuse had declined to 5·84 million coils in 1967-68 as compared to 7·37 million coils in 1967-68. It again rose to 7·44 million coils in 1968-69 and declined 6·99 million coils in 1969-70. It may also be noted that the licensed capacity for safety fuse has been 10·1 million coils which has never been attained in actual output.

IEL applied for a 'Carrying-on-business' (COB) licence for the manufacture of 2·8 million meters of detonating fuse per annum. This application of IEL was opposed by Indian Detonators Ltd. which was already manufacturing detonating fuse. It was pointed out on their behalf that though their licensed capacity was about 6,000 kilometres, their actual installed capacity was larger by about 30% as the minimum economic unit was larger. At the same time, the demand had steadily gone down and IDL had to resort to exports so as to ensure better utilisation of capacity. It was, therefore, pointed out that licensing of further capacity would worsen the situation. The Government however decided that, in view cf the expenditure already incurred or committed by IEL for the construction and installation of plant, a COB licence on maximum utilisation basis may be granted. The Industrial licence for 28 lakh metres of detonating fuse was thus granted to IEL in October, 1971. Production of detonating fuse had already started in August, 1971.

2·14 The only major activity that IEL has undertaken outside the explosives field has been that of the production of fertilisers. IEL applied for an industrial licence for the manufacture of urea fertilisers in 1965 for the erection of what was then claimed as Asia's largest urea plant. A licence was granted in 1966 for a capacity of 450,000 tonnes per year and production commenced in 1969. The importance of this plant, it is claimed, can be gauged from the fact that at present it provides over 12% of the nitrogenous fertliisers produced in India.

Quality Control

2·15 The applicant Company has pointed out that an elaborate system of quality control has been set up in the explosives plant to ensure a consistently high standard of quality of the finished products. Because of the dangerous nature of the products, the system has built in safeguards so that the products not only give optimum performance but are also safe to handle. Detailed specifications are drawn up for various types of products taking into account the end use as well as customers requirements. Statutory requirements as laid down by the Chief Inspector of Explosives and the Director General of Mines Safety are also incorporated in the product specifications. Specifications are also prescribed for various intermediates and raw materials, and operational controls are so laid down as to ensure that these are observed. Thorough testing of samples submitted by prospective suppliers is carried out before selecting a new source of raw material. Wherever required, technical assistance is given to suppliers to improve the quality of raw materials to bring it to the required standards. Statistical quality control techniques are used for the testing of raw materials, intermediates and finished products, and cent per cent inspection is carried out for a few critical items.

2·16 In drawing up the various specifications, reliance is placed on informption received from overseas associates as well as IEL's own past experience. It is claimed by IEL that their products confirm to internationally accepted quality standards, Customer's experience and complaints are also taken into account by the Technical Service Department and feedback on all sales experience is received from the field for the purpose of maintaining and improving quality.

Marketing

2·17 The applicant Company has pointed out that, in the explosives field, some 80% of their sales are to Government and public sector corporations and 10% to large consumer. Only the remaining 10% is sold to smaller customers. They have pointed out that they have built up a country-wide organisation to maintain a proper and adequate service to their customers. In view of the hazardous nature of explosives, and also to ensure the best possible use of available material, direct contract with the large majority of customers is considered essential and this is organised through the visits of the Company's sales representatives and also executives from its main offices. Sales representatives are posted in all key areas so that they are in regular contact with customers to see that supplies are available when required and also to answer technical queries. A system of magazines of explosives located at strategic points has been organised to ensure ready availability of products. There is a large team of technical service engineers maintained by the Company for assiting customers with their technical problems. The technical Service Department, it is claimed, is also actively engaged in the introduction of new products and new methods so that customers may always be within the reach of the latest techniques in the utilisation of explosives.

2·18 While large customers are supplied direct from Gomia either by rail or by road, other customers are supplied from magazines. In certain areas the services of consignment agents, who store and despatch products, are also used. IEL also employ a large number of distributors who purchase IEL's products and sell to their own user-customers. The distributors are selected taking into account their ability to service customers, they usually "have a long history of association" with IEL.

2·19 The applicant Company has explained that when stocks are inadequate "we have clear understanding from Government as to the basis of distribution". Certain priority users, such as coal mines and metallurgical mines, have to be catered to first. Major public projects also receive priority.

2·20 Specially with a view to help theaoptimum and safe use of blasting explosives in mines, IEL maintains a full fledged Technical Service Department manned by experienced and well qualified mining engineers. The services rendered by this Department to customers include not only attention to technical problems but also study of the specialised requirements of different segments of the industry and of individual customers. One of the most striking examples of the importance of the close relationship maintained with customes has been, according to IEL, the development of a system of "blasting-off the solid" for winning coal without the use of coal cutting machines which are scarce. "This development involved designing of a blasting technique and designing of special explosives and detonators". It has been claimed that this system, now fully established, has not only enabled the coal industry to meet the high targets of production set for it, but has also given important economies by reducing the mining cost of coal and also saving foreign exchange on the import of coal cutting machines.

Research and Development

2·21 Quality control as well as research and development are organised in a section independent of the production section in the Explosives Division. It has been pointed out that R & D work commenced in the Explosives Division right from 1958. It was also taken up in the Fertiliser Division in 1970. It has been pointed out that R & D equipment including a pilot plant worth Rs. 23 lakhs has been installed in the Explosives Division. The annual expenditure on R & D in the last few years is shown below :—

TABLE 9

Expenditure on R & D by IEL

	70—71	71—72	72—73	73—74	74—75
For Explosives Division of IEL :					
Rs. lakhs · · · · · · · ·	9	8	10	13	20
% of turnover · · · · · · ·	0·64	0·50	0·63	0·57	0·69
For IEL as a whole :					
Rs. lakhs · · · · · · · ·	25	24	29	32	40
% of turnover · · · · · · ·	0·76	0·49	0·74	0·45	0·40

Source : The applicant Company.

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It will be seen that the expenditure has more than doubled in the last few years and constitutes about 0·6% of the turnover. It will be noticed that the proportion of R & D expenditure for the Company as a whole is less as compared to that in the Explosives Division; this indicates that the R&D expenditure constitutes a smaller percentage of the turnover in the Fertilisers Division.

2·22 The applicant Company has pointed out that it had recognized from the beginning that the sophisticated and specialised technology involved in the explosives industry had to be backed by a first class Research and Development set up. That is why a nucleus of R & D was formed right at the beginning of the production unit so that the products could be adapted to local conditions and made from indigenous raw materials. IEL has further stated "Over the years we have built up our R &D set up so that Gomia is today one of the most important centres in the world for R & D on explosives.... R&D efforts at the factory and technical service efforts in the field are constantly devoted to monitoring the quality and performance of our products with a view to achieving better and better quality and full satisfaction to our customers. This involves setting up of specification standards, devising of performance tests, substitution of imported, scarce and expensive raw materials, modifications of explosive compositions to meet specific customer needs, investigation of complaints from customers, optimisation of plant efficiencies, etc.

"Several new products have been developed as a result of the study of the needs of the mining industry. These products would give the customers a wide range from which to choose a product which will give them optimum blasting performance at minimum cost. Seismic explosives have been developed for the specfic need of seismic prospecting for oil, both within the country and for the export market.

"R & D work has also been of considerable benefit to our production units in optimising plant output rates, increasing efficiencies and in pollution control.

"Apart from the work in support of the existing lines of manufacture, we have been keeping abreast of the new developments in the explosives technology in the world. We were the first to undertake work on slurries and Dry Blasting Agents in India and, as a result, the first large diameter slurries in the country were put on the selling range by us as early as 1968. We were also the first market a cartridged small diameter Dry Blasting Agent in 1973 for which a patent has been filed. Our work on small diameter slurries carried out since 1969 has been of a pioneering nature and has generated a wealth of background information relating to mechanism of sensitisation of slurries, formulation techniques and mechanical cartridging equipment and demonstrated the need of a chemical sensitiser. Evaluation of several possible sensitisers has been carried out and we have come to the conclusion that potentially the HAMN type are the most promising. As the use of this sensitiser had already been patented by CIL we have now arranged to obtain the necessary licence so that, with the expertise and experience generated bv our R & D work on small diameter slurries, we are able to launch a new range of small diameter slurries in the shortest possible time.

"A Slurry Pump Truck for bulk transportation of slurry to the blasting site and pumping of the slurry into bore holes has also been developed by us.

"Explosives systems were specially developed by us for underwater blasting such as is required for harbour deepening and dock-yard expansion. Anticipating the importance of exploration for oil to the national economy, we had undertaken development of products/systems that might be needed, such as Seismic Gelatines and Shaped Charges. We have also been working on development of other new applications for explosives".

2·23 R & D work in the field of explosives is not only concerned with product development but, it is claimed, it also covers fundamental studies in explosives technology, import substitution and the production of better materials as well as the use of better processes. Detailed information about the patents obtained and applied for as a result of the R&D work in the IEL will be found in Appendix *IV*. According to IEL's own estimates, out of ten major contributions (which can lead to patents), five related to adaptive improvement and five the basic development.

2·24 IEL had also been asked to distinguish between the expenditure incurred on innovative R & D and that incurred on supportive R & D. The information supplied will be found in Table *10*. The data are not fully comparable to the data given in Table *9* above. According to IEL, however, innovative R &D gets a far larger share than support R & D. It has also been claimed that a substantial number of qualified personnel have been employed by the applicant company for the purpose of its R & D effort.

TABLE 10

(Break-up of R & D Expenditure by IEL)

Year	Supportive (Rs. lakhs)			Innovative (Rs. lakhs)			Grand Total Rs. in lakhs
	Revenue	Capital	Total	Revenue	Capital	Total	
1971-72 · · ·	9·15	0·57	9·72	6·26	4·95	11·21	20·93
1972-73 · · ·	9·56	0·58	10·14	7·13	5·00	12·13	22.27
1973-74 · · ·	12·12	1·83	13·95	10·00	4·60	14·60	28·55
1974-75 · · ·	15·20	0·76	15·96	14·10	22·13	36·23	52·19
1975-76 · · ·	18·00	3·00	21·00	22·00	22·00	44·00	65·00

Source : The applicant Company.

Capital Structure of the Company

2·25 Authorised, Issued and Subscribed Capital:—The authorised share capital of the Company as on 30th September, 1975, was made up of 83·20 lakh equity shares of Rs. 10/- each and 166·80 lakhs 'A' equity shares* of Rs. 10/- each, making a total of 250 lakhs equity shares of Rs. 10/- each. The authorised share capital of the Company thus amounts to Rs. 2500 lakhs. The paid up capital is made up of 48·02 lakhs equity shares of Rs. 10 each and 'A' equity shares of 166·80 lakhs of Rs. 10/- each both fully paid up. Thus the total number of shares fully paid up is 214·82 lakh.

2·26 The above paid up share capital of this Company includes 13·72 lakhs Bonus shares of Rs. 10/- each issued by the Company as fully paid up in 1965-66. The Company issued these bonus shares by capitalisation of reserves from

		Rs./lakhs
(a)	Share premium account	51·60
(b)	General reserves	67·16
(c)	Dividend equalisation reserves	18·44
	Total	137·20

2·27 It would be seen from the information given in Table-7 earlier that Imperial Chemical Industries (U.K.), who are the major non resident shareholders of the Company, hold 109·6 lakh shares. A further analysis of the shares held by ICI (U.K.) reveals the following position:—

TABLE 11

Shares held by ICI in 1961 and subsequent additions

(i)	1961	24·00 lakhs	80% of total
(ii)	1966 (Bonus)	9·60 lakhs	
(iii)	1968 (new)	76·00 lakhs	
	Total	109·60 lakhs	51·02% of total

Source : The applicant Company.

Prior to 1961, the shares were held beneficially by ICI (India) Pvt. Ltd. on behalf of Imperial Chemical Industries Ltd. (U.K.). In 1965-66 the Company issued bonus shares of 13·72 lakhs. Out of these, ICI (U.K.) were issued 9·6 lakh shares. In 1967-68, ICI were issued 76 lakhs shares for cash. This was for financing the fertiliser project. The International Finance Corporation (IFC), Washington (USA), acquired 21·50 lakhs equity shares at the same time. These shares are now being disinvested to the Indian Public and the Current holding of I.F.C. is 17·00 lakh shares. 4·30 lakh shares of the face value of Rs. 10/- each were issued to the Indian public in 1964-65. These were issued at a premium of Rs. 12 per share. Out of the issue for the fertiliser project, 19 lakh shares were issued to the Government of India and about 50 lakh to the existing Indian shareholders and other Indians.

2·28 The growth of paid up capital of the Company since the inception of the Company has been as under :—

TABLE 12

Growth of Paid-up Capital of IEL

Year as at 30th Sept.	No. of Equity Shares	Face Value Rs.	Paid up Value Rs.
1954	20,00,000	2,00,00,000	10,00,067
1956	20,00,000	2,00,00,000	1,00,00,035
1957	20,00,000	2,00,00,000	2,00,00,000
1959	30,00,000	3,00,00,000	3,00,00,000
1965	34,30,000	3,43,00,000	3,41,82,645
1966	48,02,000	4,80,20,000	4,80,20,000
1968	2,14,82,000	21,48,20,000	13,15,94,697

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*These shares were issued in 1967-68 for financing the fertiliser project and were not to participate in dividends for some years. Otherwise they are on par with the other shares.

TABLE 12—Contd.

1	2	3	4
1969	2,14,82,000	21,48,20,000	21,41,18,310
1970	2,14,82,000	21,48,20,000	21,46,32,945
1971	2,14,82,000	21,48,20,000	21,48,20,000

Source : The applicant Company.

2·29 The Government had suggested to IEL in May 1964, during discussions on the proposal of a licence to manufacture detonators, that the equity participation of ICI (U.K.) in IEL should be reduced from 80% to 70% in the first instance, and then to 60%*. Apparently IEL agreed to this. IEL has however claimed that "IEL has voluntarily, and much in advance of the passage of the Foreign Exchange Regulation Act, 1973, progressively reduced the equity holding of ICI from the original level to (sic) 80% to 51%, where it rests today"**.

Financial Working

2·30 Information about the financial working of the Company from 1964-65 to 1974-75 is given in Table *13* Part I and II. It needs to be noted in this connection that the fertiliser project of IEL commenced operation in 1969-70. The analysis of the financial working shows that the profitability of the Company has been generally high; it was specially high before the Company's entry in the fertiliser field. The profits on sales were around 26% in the years 1964-65, 1965-66 and 1966-67. With the beginning of the fertiliser project, capital-work-in-progress increased considerably in 1967-68. The profitability on sales has been at a lower level since then. Similarly the profitability on capital employed was high earlier (41·7% in 1965-66 and 38·2% in 1966-67). It has been lower in subsequent years. This suggests that when the Company was engaged purely in explosives production, its profitability was much higher. Though separate data are not available to support such a hypothesis it is possible that even now the profitability of the Explosives Division may be much higher than the profitability of the Fertiliser Division. After all the Company has a semi-monopoly position in explosives while it has no such market advantage in fertilisers. Moreover, the IEL is not quite free to set its fertiliser prices as it likes. We shall examine the pricing policy further in a subsequent section. It may be seen from Table 13 that the Equity debt Ratio of the Company has been comfortable and this ratio was 1:0:31 in 1974-75.

2·31 As a result of its good profitability, IEL has been paying good dividends. Except for the first three years up to 1960-61 and in 1973-74 dividends have been above 15%. The dividends were 20% in 1964-65, 17·5% in 1965-66, 15% in 1966-67 and 1970-71, 17·5% in 1971-72 and 1972-73, 12% in 1973-74 and 20% in 1974-45.

TABLE 13

Statement showing Financial Position of IEL

Part I — 1964-65 *to* 1968-69.

(Rs. lakhs)

Capital Employed	(year ending 30th September)				
	1964-65	1965-66	1966-67	1967-68	1968-69
1. Fixed Assets	834·90	962·84	1073·79	1108·05	1176·24
Less Depreciation	287·27	352·59	421·02	492·68	565·28
Net Assets	547·63	610·25	652·77	615·37	610·96
2. Current Assets	229·27	337·37	409·23	819·52	830·24
3. Current Liabilities	221·07	296·24	270·62	655·21	574·99
4. Working Capital (2-3)	8·20	41·13	138·61	164·31	255·25
5. Capital Employed (1+4)	555·83	651·38	791·38	779·68	866·21

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*Government of India, Ministry of Industry, Letter No. Pr. C. 8(1)/61-Ch. III dated the 19th May, 1964 to IEL.

**IEL's letter to the Commission dated the 19th December, 1975.

TABLE 13—*Contd.*

Statement showing Financial Position of IEL—Contd.

Part I—1964-65 to 1968-69—Contd.

1	2	3	4	5	6
Financed by :					
Equity	341·83	480·20	480·20	1315·95	2141·18
Reserves and Surplus	269·52	187·45	240·33	289·95	360·67
Secured Loans	23·93	5·01	154·07	901·45	2187·58
Unsecured Loans	..	20·39	21·36	540·12	840·71
Total	635·28	693·45	895·96	3047·47	5530·14
Less					
Capital work in progress	76·24	39·25	101·91	2251·24	4659·66
Investments	0·06	0·06	0·06	3·05	2·56
Misc. Expenditure	3·15	2·76	2·61	13·50	1·71
Total	79·45	42·07	104·58	2267·79	4663·93
Capital Employed	555·83	651·38	791·38	779·68	866·21
Average Capital	592·83	603·60	721·38	785·53	822·94
Equity/Debt Ratio	1:0.04	1:0-04	1:0.24	1:1.09	1:1.21
Sales	794·22	922·15	1038·66	1389·59	1513·97
Cost of Sales	582·61	670·05	763·84	1125·66	1192·19
Gross Profit	211·61	252·10	274·82	263·93	321·78
Percentage of Gross Profit %					
On Sales	26·6	27·3	26·4	19·0	21·2
On Cost of Sales	36·3	37·6	35·9	23·4	27·0
On Average Capital Employed	35·7	41·7	38·2	33·5	39·1

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Part II — 1969-70 *to* 1974-75

(Rs. lakhs)

Capital Employed	(Year ending 30th September)					
	1969—70	1970—71	1971—72	1972—73	1973—74	1974—75
1	2	3	4	5	6	7
Capital Employed						
1. Fixed Assets	6324·80	6455·96	6683·82	6981·59	7040·30	7255·49
Less						
Depreciation	897·70	1403·89	1917·68	2462·68	3010·97	3584·36
Net Assets	5427·10	5052·07	4766·14	4518·91	4029·33	3671·13
2. Current Assets	1013·78	1258·23	1386·97	1393·42	2425·92	3426·96
3. Current Liabilities	621·98	463·28	412·99	508·09	1184·73	1005·73
4. Working Capital (2—3)	391·80	794·95	973·98	885·33	1242·19	2421·23
5. Capital Employed (1+4)	5818·90	5847·02	5740·12	5404·24	5271·52	6092·36
Financed by :						
Equity	2146·33	2148·20	2148·20	2148·20	2148·20	2148·20
Reserves and Surplus	570·89	657·53	1072·70	983·67	1488·11	2642·32
Secured Loans	2286·52	2381·58	1880·48	1573·03	1130·95	950·53
Unsecured Loans	859·74	771·23	787·64	767·53	613·38	553·29
TOTAL	5863·48	5958·54	5889·02	5472·43	5380·64	6294·34

TABLE 13 — *Contd.*

Statemant showing Financial Position of IEL—Contd.

Part II—1969-70 *to* 1974-75 (Rs. lakhs)

1	2	3	4	5	6	7
Less						
Capital work in progress	37·88	105·81	143·59	63·27	104·20	197·06
Investments	5·52	4·92	4·92	4·92	4·92	4·92
Misc. Expenditure	1·18	0·79	0·39	..	..	..
TOTAL	44·58	111·52	148·90	68·19	109·12	201·98
Capital Employed	5818·90	5847·02	5740·12	5404·24	5271·52	6092·36
Average Capital	3342·55	5832·96	5793·57	5572·18	5337·88	5681·94
Equity/Debt Ratio	1:1.16	1:1.12	1:0.83	1:0.75	1:0.48	1:0.31
Sales	2435·98	3135·37	4501·54	3644·08	6602·89	9387·53
Cost of Sales	1995·55	2660·46	3543·83	3208·87	5469·24	8103
Gross Profit	440·43	474·91	957·71	345·21	1133·65	1283·86
Percentage of Gross Profit %						
On Sales	18·00	15·15	21·28	9·47	17·17	13·68
On Cost of Sales	22·1	17·85	27·02	10·46	20·73	15·84
On Average Capital Employed	13·1	8·1	16·53	6·20	21·24	22·60

Source : Compiled from the Profit and Loss Accounts and Balance Sheets of the applicant Company.

Gain to ICI (U.K.)

2·32 IEL a subsidiary of ICI (U.K.). Even though the latter's shareholding has been brought down from 80% at the inception to about 51% now, IEL continuous to be under the majority control of ICI (U.K.). The Commission had, therefore, asked for data about how much payment ICI (U.K.) had received from IEL from the latter's inception upto and including the year 1975. The information is as follows :—

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TABLE 14

Remittance to foreign collaborator by IEL since inception

(Rs. lakhs)

	Gross	Tax	Net Payment
1. Royalty	399	279	120
2. Dividends	1122	260	862
3. Design, Engineering & Licence payment (ICI Share)	310	..	310
4. Commission paid on purchases	7	..	7
5. Technical Fees	100	53	47
Total	1938	592	1346

Source : The applicant Company.

It will be seen that as against the share capital contributed in cash or by way of adjustments against loans, and including premium on shares to the extent of Rs. 1215 lakhs, the parent Company had obtained a net amount of Rs. 1346 lakhs upto 1975 and bonus shares of the value of Rs. 96 lakhs. It should be also noted in this connection that, under the initial agreement about setting up of IEL, ICI (India) were the sole selling agents for the sale of blasting explosives and such other products as were manufactured by IEL. IEL supplied the products on consignment basis and had to bear the cost of transport, packing and handling, ICI (India) was responsible for publicity and advertising as well as the sales organisation, magazines for storage and technical service to the customers.

In return for these services, they received a Commission @ 5%. This arrangement continued till 31st January 1969 when it was terminated as the Reserve Bank of India did not permit this to continue. That the Government of India was not very happy about this provision, at least subsequently, is indicated by the fact that when permission to manufacture detonators was granted to IEL in 1964, it was laid down that the sales of detonators will be handled by IEL and not through ICI (India). While it has not been possible for us to ascertain what benefit in terms of additional income, ICI (India) obtained from this arrangement it would be difficult to get such data for past periods when the sales organisation for explosives was a part of ICI's sales organisation—it may not be wrong to assume that the benefit would not have been inconsiderable; otherwise there was no necessity of making a special provision in the initial agreement for this purpose. Unlike IEL where there was some Indian shareholding from the very inception, ICI (India) continues to be a 100% subsidiary of ICI (U.K.).

Foreign Exchange Impact

2·33 The Commission has obtained from the applicant Company details in respect of inflow and outflow of foreign exchange on account of its operations from the inception of the Company upto and including the year 1975. A summary of this informations given below :—

TABLE 15

Inflow/Outflow of Foreign Exchange from the operations of the IEL since inception till 1974-75

(Rs. lakhs)

Inflow	Gross	Tax	Net
1. Share Capital	1215	..	1215
2. Loans	420	..	420
3. Exports	144	..	144
4. Deferred credits	825	..	825
5. Increase in Rupee value due to change in exchange rate	280	..	280
6. Interest	34	14	20
7. Share of Research expenditure	12	..	12
Total	2930	14	2916

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(Rs. lakhs)

Outflow	Gross	Tax	Net
1. Purchase of capital goods	2032	..	2032
2. Raw materials	40	..	40
3. Royalty	399	279	120
4. Dividends	1122	260	862
5. Design, Engineering & Licence payments	583	..	583
6. Loan repayments	880	..	880
7. Interest & Commitment charges on loan	449	..	449
8. Other interest	..	..	..
9. Commission :			
(a) on purchase	3	..	3
(b) on exports	4	..	4
10. Technical fees	100	53	47
Total	5612	592	5020

Source : The applicant Company.

It will be seen that as against an outflow of Rs. 5020 lakhs, the inflow has been Rs. 2916 lakhs. Even if the outflow on account of purchase of capital goods amounting to Rs. 2032 lakhs is deducted as inevitable outflow, the outflow on account of other items such as royalty, dividends, and various other payments and fees accounts for quite a large amount.

2·34 In this connection, it may also be noticed (see table below) that, as compared to the total turnover of IEL, its exports have been negligible.

TABLE 16

Exports of Explosives and Accessories by IELin relation to value of production.

(Rs. lakhs)

Year	Explosives		Accessories		Total	
	Value of production*	Exports Foreign Exchange earnings (CIF)	Value of production*	Exports Foreign Exchange earnings (CIF)	Value of production*	Exports Total Foreign Exchange earnings (CIF)
1971	1134	3·74	286	0·31	1420	4·05
1972	1263	10·12	322	10·83	1585	20·95
1973	1116	24·53	368	12·28	1484	36·81
1974	1776	18·43	462	20·60	2238	39·03
1975	2461	25·08	532	16·16	2993	41·24

*Figures are for the year ending 30th September.

Source : The applicant Company.

2·35 The details as supplied by the applicant Company about export pricing are given in Appendix V. The information given in this Appendix suggests that the export prices were not only significantly lower than the ex-factory prices charged for domestic consumers, but that, in many cases, they were also much lower than the cost of production. In the item Blue Sump the gap between the cost of production and export price appears to have been very limited. In respect of blasting explosives, the export price has usually been about 2/3rds of the cost of production. These data are given below :—

TABLE 17

Export prices realised by IEL in relation to cost of production and domestic prices

(Rs. per tonne)

Year	Average ex-factory price for export	Cost of production excluding national interest and sales and distribution	Average selling price (domestic)	(1) as % of (2)
(1)	(2)	(3)	(4)	(5)
1970—71	3228	2878	3773	112·2
1971—72	2190	3200	4033	68·4
1972—73	2280	3748	4295	60·8
1973—74	3157	4613	5644	68·4
1974—75	4250	5668	7000	75·0

Source: The applicant Company (columns (1) to (3))

These data will show that the exports have been effected at quite uneconomical prices. We would like to draw the attention of the Government to this phenomenon. The Commission has no means of knowing whether exports at such a cost in terms of subsidy are worthwhile as per the policy of Government. In effect it amounts to earnings of foreign exchange at a ratio substantially higher than the official one, in some years amounting to asmuch as 70% or over.

Pricing Policy

2·36 Information about the prices charged by IEL for its main explosive products is given in Appendix VI. IEL has claimed that since production started, their prices remained fairly constant till 1974. Thus in 1974 the prices were almost the same as they were in 1959; in fact there were two price reductions in between, and only a small increase in 1970. It was only in 1974, "following the energy crisis and steep inflation in prices of raw materials and services within the country", that the prices were increased substantially. It has also been claimed that a comparison with the wholesale price index will show that the price increase in the explosives marketed by IEL have been small. "For example a case of SG 90% (100 mm) which sold for Rs. 130·50 in 1959 now sells for Rs. 203·50 a total increase of only 56% over a period of 18 years. This is in the context of increase in prices of four major raw materials e.g. Glycerine increase of 224% between 1971 and 1974, and ammonia increase of 83% between 1971 and 1974. There have been substantial increases in other raw and packing materials, electricity, etc. also."

2·37 The applicant Company has explained that initally the prices of their products were fixed on the basis of the landed cost of equivalent imported products which these explosives replaced. It has also been pointed out that as 80% of sales are to Government customers and prices are fixed largely under the rate contract system through the D.G.S. & D, IEL does not have the freedom to fix selling prices unilaterally. It has been further claimed that a comparison with international prices would show that IEL's prices are generally lower than the local prices for comparable products in countries like the U.K., Australia and Canada; and this in spite of the fact that the cost of major inputs such as ammonia, glycerine, etc. are cheaper in those countries. The following data have been given in support of the above statement :—

TABLE 18

Prices of major raw materials and explosives in India and few other countries

(Rs./tonne)

Raw Materials	U.K.	U.S.A.	INDIA
Ammonia	1120	1620	2450
Glycerine	6000	9000	18330
Ethylene Glycol	3950	4500	6870
N.O.	10100	12560	25050

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Explosives	India	Canada	Australia	U.K.
SG 90%	7970	..	14949	7902
SG 80%	7650	8654	14949	7272
Unisax	5990	8218	14904	6268

Source : The applicant Company.

2.38 A further point made by the applicant Company in this regard is that as compared to the cost of production the prices charged under rate contract are not very high.

The following data are given in support of this statement :—

TABLE 19

Cost of production and prices of certain types of Explosives

	Products	Cost of production (total)* Rs./tonne	Present DGS & D rate contract average prices (FOR, Gomia) Rs./tonne	(1) as percentage of (2)
	(1)	(2	(3)	(4)
Non-Permitted	SG-90%	6904	8055	74
	SG-80%	6723	7565	86
	SG-60%	6519	7090	89

TABLE 19—*Contd.*

(1)		(2)	(3)	(4)
Permitted · · ·	Ajax · · ·	6295	6945	92
	Unisax · · ·	5980	6620	92
	Viking · · ·	4876	6080	81
	Soligex · · ·	4822	6255	76

*Including notional interest on working capital.

Source : The applicant Company.

TABLE 20

IEL 's Average Cost of Production of Explosives

(Rs./Tonne)

Year	Cost of Production	Notional Interest on Working Capital	Cost of production (Total)	Sale price Rs./tonne
1969-70 · · ·	2676	86	2762	3,702
1970-71 · · ·	2878	113	2991	3,773
1971-72 · · ·	3200	117	3317	4,033
1972-73 · · ·	3748	168	3916	4,295
1973-74 · · ·	4613	291	4904	5,644
1974-75 · · ·	5668	376	6044	7,000

NOTES 1. Cost and price is the average pertaining during the year. Cost of production is total cost, but excludes distribution freight expenses and excise on sales but includes notional interest. Price is the average achieved each year with distribution freight expenses and excise excluded.

Source : The applicant Company.

2.39 The first point here is regarding the inclusion of what is called notional interest on the working capital in the computation of the cost of production. What is claimed by the Company is that, because of their comfortable financial position, they were able to meet the working capital requirements from their own funds. Normally such finance is obtained from banks and interst has to be paid on it. It has, therefore, been claimed that, in calculating the cost of production, it would be appropriate to make an allowance for notional interest. The Commission cannot agree with this approach of the applicant Company. The Company's own reserves are built up out of the profits made by the Company and form a part of the Company's own assets. Calculating interest on such funds would, therefore, amount to a kind of double counting. The relevant comparison should, therefore, be with cost of production without notional interest rather than including such interest. The notional interest can be as high as Rs. 300 or more per tonne (See Table 20). Thus the cost figures as a proportion of the DGS& D rate is likely to be much less than what is shown in column 3 (Table 19) above if cost figures without notional interest for these items were available.

2·40 Regarding the claim that the bulk of the supplies being sold to public authorities, the rates are fixed by authorities like DGS&D, and the Company is not therefore free to see its own prices, the Commission has observed that the DGS& D has not been able to fix the purchase rates for public authorities on the basis of a cost study. In a communication to the Commission, it has been stated on behalf of the DGS&D, that, while no cost checking has been done in the recent past, increases in costs of raw materials as indicated by the supplying firms are taken into account when price increases are being considered. It is thus clear that the prices charged by IEL even to the public authorities for their purchases have not been subjected to any detailed scrutiny. Recently Coal India Ltd., the largest consumer of 'permitted' explosives in the country, appears to have gone into a claim for price escalation made by IEL. Even then, it appears that it was more a question of bargaining rather than detailed study. As a result, as against a price rise of 12% claimed by IEL, a 2% incrase was permitted by CIL.

2·41 The fact that the prices were initially fixed on the basis of the landed cost of equivalent imported products merely means that the country was not put in a position of greater disadvantage as a result of IEL setting up production here as compared to what was being charged by its parent company for sales in the India market. As already indicated earlier, ICI (U.K.) had a strong hold on the Indian Explosives market for many decades. As there has been no inquiry into the justification of the prices that were being charged for the imported products, there is no means of knowing whether these prices were reasonable or not. The fact that IEL could make very large profits with these prices, and this in spite of their building up capacities which were much larger than those licensed to them and which took time before they were fully brought into use, suggests that the margin of profit initially available must have been substantial. Moreover our financial analysis shows that at these prices the profitability was very high in spite of very large provisions for depreciation, etc. As regards the data given by the applicant Company to show that the present prices are reasonable in comparison to international prices, it has not been possible for the Commission to get data from independent sources to check on this information. It is likely that the prices of certain raw materials are higher in India as compared to foreign countries. On the other hand, labour is much cheaper in India and certain aspects of the manufacturing process are labour intensive. It is difficult to say whether on balance the cost of production in India is likely to be higher or lower than in foreign countries.

2·42 As a matter of fact one of the charges made by opponents against the applicant Company is that by installing plant and machinery with capacity much larger than what was licensed the Company loaded its consumers with unduly high prices. It could get away with this because it was the sole producer of blasting explosives. Moreover, traditionally and because of the world wide cartel organisation, ICI (U.K.) was the only supplier of explosives to India earlier and it also probably charged unduly high prices. By installing plant with larger capacity, though production in the earlier years was small, the consumers were made to pay for the extra capacity created. The plant bought when prices were not too high could also be rapidly depreciated both because of various concessions (like development rebate) which the Government of India gave in this period to encourage capital investment and also because of the higher prices that could also be charged due to the monopoly position that IEL enjoyed.

2·43 It has also been claimed that the examination of the balance sheets of the company would show that the company is not making exhorbitant profits. This statement is based on the data given as follows :—

TABLE 21

Returns on Assets employed by IEL

(Rs. lakhs)

	1971	1972	1973	1974	1975
Net assets employed (taking fixed assets at cost) . . .	7096	7448	7659	8287	9681
Profit before taxation	249	740	287	977	1234
Return on assets employed	3·5%	9·9%	3·7%	11·8%	12·7%

Source : The applicant Company.

2·44 It is claimed that the fact that "return on assets employed" is as low as 11 or 12% would indicate that the prices are reasonable. As regards this last statement, we have already examined the question of profitability and we have indicated there the fact that the profitability was much higher in the period before the Company entered the fertilizers field and this suggests that the profitability of the Company in the explosives area may be higher as compared to that in the production of fertilisers. The applicant Company has put forward one further plea, *viz.*, that their prices are comparable to the prices of their only competitor, IDL Chemicals, even though "our products are known to be superior in performance". In a situation where the bulk of the output is produced and marketed by IEL, IDL being a new entrant with a much smaller output, IDLs prices cannot but follow the prices of IEL. This therefore is no indication of IEL's prices being reasonable.

Expansion of Capacity

2·45 As indicated earlier in the Report, the licensed capacity of the applicant Company for the production of blasting explosives was fixed at 5,000 tonnes per annum initially. Through various stages, this has increased to 36,000 tonnes per annum by an order issued in June, 1976. There has been much controversy about the manner in which this increase in capacity has been brought about. Some of the allegations made in this respect have to do not only with the monopolistic position and past practices of the applicant Company but also with the possible future development of this Company and of the explosives industry. It would therefore be useful to look at this aspect a little closely.

2·46 When the Gomia factory was planned in 1953-54, it appeared that a capacity of 5,000 tonnes per annum was considered adequate for meeting the country's essential requirements for some years, With the Second Five Year Plan, the demand increased. The intention of the ICI-Government agreement being to make the country virtually self-sufficient in commerical explosives, IEL investigated the demand pattern and worked out a scheme to cover the country's requirements for some years to come. In February 1959, IEL wrote to the Government that the matter had been under discussion for some time by IEL's Board, "and no doubt the Government Directors will have kept you informed". It was also indicated that ICI (U.K.) was willing to provide a loan to ICI (India) which would enable the foreign exchange costs of the proposed expansion to be met through an issue of new equity. A formal application for an industrial licence to expand the capacity from 5,000 to 15,000 tonnes per annum was made in November, 1959. The Government agreed to the proposal and an industrial licence was granted in April 1960. In July, 1961, IEL wrote to the Government that on account of their having been able to procure a nitric acid plant of a larger capacity at considerable saving, and they having installed this large plant "after discussion with the Government Director and with the approval of the Ministry", they found that it would be possible to obtain from the extended plant, without any additional capital expenditure, an output of explosives "considerably greater than the 15,000 tonnes per annum originally planned and in fact probably upwards of 20,000 tonnes per annum". it was explained that the explosives plant consists essentially of a number of units carrying out successive operations, each based on well tried machines of standard size. "In planning such a factory the number of units is chosen as nearly as possible to match the rated capacity, but as these are of standard size, there is usually some spare capacity latent in most of the unit operations. It is only in the acid plants and particularly the nitric acid plant that it is convenient to "tailor" the units closely to requirements (as was done in the case of the plant now installed) and it is usually the nitric capacity which most rigidly determines the output of the factory". Therefore, by this letter of 4th July, 1961, IEL placed on record the fact that the extended plant was capable of producing upwards of 20,000 tonnes per annum.

2·47 The data given in Table I Part II above will show that the production of commercial explosives by IEL went on increasing. The production reached about 19,000 tonnes in 1964-65 and about 23,000 tonnes in 1965-66. On May 17, 1966, IEL wrote to the Government of India, Ministry of Industrial Development, that this increased output had been "the result of intensive efforts made over the past few years whereby work reward schemes have led to a significant increase in productivity,improvements in plant utilisation, the introduction of better methods of materials handling, reduction in machine down time and the efforts of applied research activity at Gomia. IEL therefore sought Government permission to increase the licensed capacity from 15,000 to 22,539 short tonnes per annum. The Government apparently advised IEL that this request would be considered after one year, *i.e.*, towards the end of 1967. In April, 1967, in a further communication to the Ministry of Industrial Development, IEL intimated that its installed capacity for high explosives was 25,000/26,000 tonnes. This, however, is based on utilising of all available standby equipment and assumes that there are no production delays due to breakdowns or stoppage of plant". In a communication on April 9, 1969, to the Ministry, IEL pointed out that nothing had been heard from Government in this respect. IEL explained its then position in the following words :

> "We have never made any secret of the fact that in endevouring to meet the country's requirements of explosives, we have in recent years exceeded our licence capacity and it will be seen from official production reports submitted by us to Government, that during the period March 1968 to February 1969 we produced a total of 25,205 tonnes of explosives. This level of production was required to meet the steadily rising demand from the mining industry and projects sponsored by the Centre and State Governments, including DGBR....The current level of production has been achieved by utilising, more or less, all installed plant capacity, including standby equipment which all explosives manufacturers provide to cover serious breakdowns, or even loss of plant/equipment due to an explosion. In addition, we have over recent years made modifications to the plant, at no cost in foreign exchange, in order to eliminate production bottlenecks."

It was pointed out that this increase in production was justified from the point of view of meeting urgent needs of the country. If production had not been increased there would have been a vast import bill. In view of all this, IEL sought "Governments formal approval to increasing our D & B. licence to 25,000 tonnes per year. We are confident that we can maintain this level of output and could perhaps increse in even further without any significant addition to the existing plant and equipment".

2·48 Apparently, no formal action was taken by the Government on this letter by way of the fresh issue of a licence or recognition of capacity. IEL therefore again wrote to the Government on September 22, 1970, emphasising "the urgent need to recognise IEL's production capacity for commercial blasting explosives by increasing their D & R licence to 28,000 t.p.a. thereby enabling them to instal sufficent essential standby equipment to maintain this production level". It was pointed out that the Government had been advised "from time to time, both directly and through their nominee on the Board of IEL of the need for provision of additional manufacturing capacity for commercial blasting explosives". Though Government had not formally regularised the increased capacity of the Company, the Company had under pressure from industry and Government agencies increased its output "by pressing into service all standby equipment, reducing maintenance time to the barest minimum and by a series of technical improvements. This has been done with the full knowledge and encouragement of Government......" It was further pointed out that the plants which were installed in 1958 were needing increasing down time for maintenance and the operation of every equipment beyond its original design capacity is continued at the increasing risk of major breakdown or accident. Maintaining production at this level indefinitely would not be possible without additional standby equipment. The request was reiterated in December, 1970.

2·49 The Government apparently gave no clear response to those communications. IEL then applied on June 6, 1972, for permission for fuller utilisation of the installed capacity under the then procedure laid down by Government under which a task force was going to examine cases where, without any additional significant investment or foreign exchange expenditure, additional capacity could be brought into existence. It was pointed out in the application that licensed capacity was exceeded in an effort to increase output and save valuable foreign exchange. The Government had been advised from time to time of the need for provision of additional manufacturing capacity and regularising IEL's capacity. It was stated :

"This high level of production has been achieved by :

1. Reduction of maintenance down-time by planned maintenance.
2. Technical improvements and modifications eliminating production bottleneck.
3. Better planning, co-ordination and operating incentive schemes for workers.
4. Shifting sales pattern towards higher productivity larger diameter cartridges.

"In addition, by increasingly utilising installed plant security standby equipment, which all explosives manufacturers provide to cover serious breakdown or loss of plant/equipment in an event of explosion due to inherent ever-present risk, an annual production of about 27,000 tonnes was achieved in 1969 and 1970, and 30,830 tonnes in 1971. We estimate that this year the production will be about 31,500 tonnes. However, if we operate the plant with a minimum margin of security standby equipment, our installed plant capacity should be considered as 28,000 tonnes.

"We should like to emphasise that explosives are essential to the country's industrial and agricultural development, as well as for defence, and had IEL been unable to step up production to meet the country's full requirements, there would have been no alternative but to import the balance from abroad. Over the period of 8 years 1964/71 IEL has produced a total of about 82,000 tonnes in excess of official licensed capacity. If this excess quantity had been imported we estimate that expenditure in terms of foreign exchange would have been of the order of Rs. 24.5 crores. Deducting the foreign exchange bill for import of raw materials for this additional production the net saving is of the order of Rs. 24 crores.

"In view of the rising demand for commercial high explosives and of the rate of production already achieved by our Gomia plant, we seek Government's formal approval for full utilisation of the installed capacity of IEL of 28,000 t.p.a. of commercial blasting explosives (production upto 31,500 t.p.a. with continuous utilisation of security standby equipment)."

2·50 It will thus be seen that between 1966 when a capacity of about 22,000 tonnes per annum was sought to be regularised on the basis of improvements in utilisation of existing plant and machinery and June, 1972, the capacity for regularisation had increased to 28,000 tonnes per annum or even 31,500 with continuous utilisation of security standby equipment.

2·51 In March 1973, IEL had a serious explosion in their mixing plant. According to the statement made by a representative of IEL in a meeting called by the Coal Controller, this affected the production of both permitted and non-permitted explosives and production was not possible during March, 1973. Production at a reduced rate was expected to be obtained from April, 1973, but it has felt that it would not be possible to attain normal production before July, 1973. A shortage was therefore expected both in permitted and non-permitted explosives. On 24th August, 1973 IEL wrote to the Ministry of Industrial Development referring to their earlier application for fuller utilisation of the installed capacity. They state that it was understood that their application had been recommended by the Task Force for acceptance by the Government. A formal communication was awaited. It was also pointed out that, after the explosion on March, 3, 1973, the task of rebuilding the mixing plant was taken up and speedily carried out so that production was restarted on June 11, 1973. Further studies made by them indicated that they could "best insure uninterrupted production by adding to the existing facilities through keeping our spares for the Mixing and Cartridging plants, which are normally kept in stores, in an installed state in new buildings, and by constructing an additional Packing House, thus converting uninstalled spares to installed spares. From our experience we find that these are the main areas which can seriously affect the level of production in the event of an unfortunate accident. Further, these minimum additional standby facilities are warranted according to normal standards prevalent in explosives factories." It was further pointed out that these additional standby facilities could be created on the basis of domestically available material and no additional foreign collaboration or consultancy was necessary. "However, because of the recent explosion we have largely used up our stock of imported spares and we therefore need replenishment, for which import applications have been or are being submitted. We consider that in the interest of a steady level of production to meet the requirements of coal and other key mining industries, and projects, we must provide and keep ready these facilities. We hope this proposal has your approval and request your confirmation." It will thus be seen that, in view of the experience of the accident, it was suggested that some standby capacity should be additionally created and that spare, instead of lying in stores, should be installed so that this capacity could be brought into use whenever necessasy in case of an accident etc. In this connection it should be noted that, as indicated in the earlier request made by IEL, they had always provided some standby equipment but that this was being used for regular production and that is how it had been possible to attain the production level of 31,500 tonnes per annum. What was now being suggested was the creation of further standby capacity so that this much production could be maintained on a steady level. Further additional imported spares etc. were also to be obtained so as to replenish items which had been used in creating standby capacity. It may be also noted in this connection that, as a result of the rebuilding of the mixing plant etc. IEL had been able to bring its production fully to the pre-explosion level. The production in July was 2517 tonnes (*i.e.* 30,200 tonnes per annum) and that in August 2,627 (*i.e.*, 31,520 tonnes per annum).

2·52 The whole question of explosives supply to the mining industry was discussed in a meeting held between representatives of the concerned ministries, users organisations in the public sector and the two manufacturers of explosives on 28th August, 1973. In this meeting the main point made from the coal mining sector was that there was a shortage of small diameter explosives and certain types of permitted explosives. One suggestion was that IEL should reduce the production of non-permitted NG explosives and increase the output of permitted explosives. In that case, large diameter non-permitted explosives as well as ANFO etc. could be more extensively used in open-cast mines. It was explained on behalf of IEL that "there were certain technical constraints in regard to switching over to production of small diameter explosives at the expensive of large diameter explosives, and in fact that the maximum that is possible is being produced... in order, however, to achieve this objective (*i.e.* more production of small diameter explosives) in a greater measure the Indian Explosives Ltd. required to increase their mixing capacity." It was further stated that "they were even now using their entire installed capacity including the standby equipments. Therefore, to provide an insurance against failures it would be necessary to instal further standby equipment and this would come in hand to meet the increased demands of small diameter cartridges in the short term." Since it was felt necessary to increase production of small diameter explosives to meet the immediate requirements of mining industry, it was stated on behalf of the Government by the Secretary, Department of Mining, as well as the Joint Secretary of the Ministry of Industrial Development, that the proposal for installation and short term utilisation of standby equipment could be supported *provided it was understood that this was purely temporary to tide over the current difficulty* in regard to supply of small diameter explosives *and was not cited for regularisation of production capacity at a subsequent date.*

2·53 On March, 5, 1974, IEL wrote to the Ministry of Industrial Development that in order to sustain production of 28,000 tonnes per annum without any break, installing of spare equipment to take care of any mishap was essential. This installed spare equipment would consist of a Mixing Unit, Cartridging Unit and a Packing House. "If Government desires us to step up the production of explosives, under normal conditions it should be possible to do so by utilising installed spares and in that event we would be able to make 35,000 tonnes per year of explosives using such installed spare capacity." The Government informed IEL on 8th April, 1974, that permission was granted to install standby equipment which IEL had applied for and "to utilise it for stepping up your production from 28,000 tonnes to 36,000 tonnes as early as possible. This permission is temporary pending your obtaining a formal clearance for effecting substantial expansion." It will thus be seen that while what had been initially agreed upon was the installation of standby equipment and its purely short-term use for meeting a temporary shortage, what was actually permitted was the stepping up of production and then obtaining a clearance for this extra capacity as substantial expansion. It may be noted that this standby plant was installed in October, 1974, and the total production of explosives was stepped up of over 3,000 tonnes per month in January, 1975. The total production attained in 1975 was 35,327 tonnes.

2·54 In the meanwhile, in November, 1973, IEL licensed capacity had been raised from 15,000 tonnes to 28,000 tonnes per annum on the recommendation of the Task Force to which IEL had applied in June, 1972. IEL further made a formal application in June, 1975, for regularisation of its capacity with the use of the standby equipment at 35,000 tonnes per annum. It was pointed out then that permission to effect the increase in capacity had already been accorded by Government on 8th April, 1974, "and this application for an industrial licence is therefore for regularisation of our capacity to a level which has already been achieved." The installation and use of this capacity had already been permitted by Government and the capacity was already in existence. It was explained that even though Government had permitted IEL to produce 36,000 tonnes per annum as per the Government letter of April, 1974, they were applying for a lower figure of 35,000 tonnes per annum because it was felt that even though the Company was in a position to produce 36,000 tonnes, their substantive capacity which can be sustained (except for adverse occurrences such as accidents) is no more than 35,000 tonnes per year. "In fact we should emphasise that after this capacity is endorsed on our industrial licence there would be *no security standby equipment left* unutilised and any breakdown or mishap would result in our falling to a production level of 28,000 tonnes or lower (emphasis added).

2·55 As already indicated earlier in this Report, this request for regularisation of capacity at 35,000 tonnes per annum has been agreed to, and a capacity at 36,000 tonnes per annum has been approved.

2.56 When looking at this question of the steady expansion of capacity by IEL, it needs to be noted that initially, when a capacity of 5,000 short tons was licensed to IEL for blasting explosives, no capacity in quantitive terms was licensed for what were called "semi-products", *viz.*, nitric acid, nitro glycerine, ammonium nitrate and oleum; it was merely stated that these would be in quantities appropriate to the production of the sanctioned quantity of explosives. In 1960 when the licensed capacity for blasting explosives was increased to 15,000 short tons, specific quantities for other products were mentioned; the capacity for nitric acid was fixed at 17,820 long tons, that for ammonium nitrate at 6,240 long tons and that for nitro glycerine at 7,200 long tons. When the licensed capacity was increased from 15,000 tons to 28,000 tonnes of blasting explosives in 1973, the capacities of the other products were also increased as follows :

nitric acid	22,750 tonnes
ammonium nitrate	17,000 ,,
nitro glycerine	9,250 ,,

For the first time a capacity for oleum was fixed at 4,500 tonnes. It was clearly indicated that the capacities for these "semi-products" had been recognised only for captive purposes. IEL in its letter of 27th June 1972 to the D.G.T.D. pointed out that for the production of 28,000 tonnes of blasting explosives, smaller quantities of semi-products would be required. But they were already producing explosives in quantities larger than 28,000 tonnes. The additional capacities, it was explained, were required to help the production of larger quantities of blasting explosives over and above 28,000 tonnes and also to meet the requirements of the proposed nitro cellulose project. When they applied in June 1975 for regularisation of capacity for blasting explosives at 35,000 tonnes per year, they did not show separately the quantities of intermediates needed to manufacture the higher production of explosives. It was explained by IEL that these were required only for captive consumption and the manufacture of such intermediates was permitted under Explanation II to the 1st Schedule of the I (D&R) Act. They apparently thought that specific mention of such capacities was not necessary.

How was Capacity created

2·57 Among the objections received by the Commission to IEL's proposal under examination, an important one was regarding its tendency to build up capacity unauthorisedly and then on suitable occasions to get it regularised. This is not permissible under the I.(D&R) Act, and an industrial licence specifically states that "no section of the industrial undertaking should have, except with the prior approval of the Government of India, capacity substantially in excess of that specified in the licence." The Commission therefore thought it appropriate to examine this aspect of IEL's working. Specific information regarding the installation of plants, capacities, and how plant capacities increased was required to be submitted by the applicant Company. The information supplied by them is given in Appendix VII. An analysis of the information supplied indicates that the following factors were responsible for IEL being able to build up capacities much larger than what were sanctioned to them. How they were regularised later has already been indicated in the previous Section.

2·58 An important point in this connection is that initially, because of lack of experience, and also because of corrosive chemical plants as well as explosive plants were expected to require maintenance for longer periods, a large section of equipment was expected to be available only for 250 days per annum while some was expected to be available for 300 days per annum. This was also supposed to take care of breakdowns. As experience has been gained, maintenance practices have improved and workers have improved their capability, availability of all equipments has been improved to more than 300 days per annum.

2·59 In certain cases, IEL has claimed that a plant of minimum economic capacity has inherently larger capacity than was required for the licensed production of the explosives. Such a plant has therefore a built-in potentiality for further increase in production. For example, the initially installed oleum plant had a capacity of ten tonnes a day which was adequate for producing explosives to the extent of 25,000 tonnes per annum. It has already been mentioned earlier that when a second nitric acid plant was installed, its capacity was 42 tonnes per day which was adequate to support a production of 21,000 tonnes of explosives per annum. This was in addition to the nitric acid plant which already had a capacity of ten tonnes per day—adequate for a production of 5,000 tonnes of explosives per annum. This plant was installed because it was a surplus second hand plant available on economic terms. The initially installed NG plant and mixture plant both had capacities of about 12,000 tonnes per annum as against the initially licensed capacity of 5,000 short tons per annum. When additions to plants were made, these were also for capacities much larger than required. For example, when a second NG plant was installed, its capacity was adequate to produce 17,000 tonnes per annum of explosives. This was in addition to the first NG Plant which was adequate for the production of 12,000 tonnes per annum of explosives. The second plant was installed in 1961-62 at a time when the licensed capacity was only 15,000 tons per annum.

2·60 Another reason stated by the Company for having built-in extra capacity was that, in a plant manufacturing explosives or generally in plants working with corrosive chemicals, it was necessary by provide standby capacity as breakdowns had to be provided for. Thus, even in the initial stage the sulphuric acid plant had two pots which provided a total capacity of 9,000 tonnes per annum of blasting explosives. Though one Denitration tower was itself capable of supporting the production of 5,000 tons of blasting explosives, another tower was provided as installed spare. Another denitration tower was also added between 1961 and 1963 to allow repairs of the old towers and to provide a standby spare. At the same time, a second tally mixer was added with a capacity of 9,750 tonnes per annum of explosives, which was considered justifiable because, this being a potentially dangerous operation, some standby margin was necessary. The same justification is provided regarding three cartridging machines installed at the same time.

2·61 A third point made by the applicant Company to explain how they were able to produce more is that many technical improvements were brought about as a result of experience and on the basis of R & D activities. For example, the capacity of the original coal fired sulphuric acid concentration pots was 18 tonnes per day. The furnaces were subsequently adapted to burn fuel oil in them instead of coal. This increased the heat transfer and more energy could be supplied. The same pots were then able to concentrate 30 t.p.d. of acid instead of 18 t.p.d. Similar explanations are also given for increase in the capacity of other plants such as Nitric Acid Plant-I—addition of compressor, more air input; Nitric Acid Plant II—addition of compressor, higher air input and improving pre-heater gascooler; Ammonium Nitrate Plant—installing air coolers and improving conveyors and steam augmentation.

2·62 It has also been pointed out that detailed work studies were undertaken and its results were continuously implemented leading to better handling of materials and better output. Wider use of work reward schemes is also said to have contributed to increased punctually resulting in improving the "intrinsic availability of machines". The product mix, it is stated, was also continuously rationalised to reduce non-productive time. Sizes of cartridges were increased so that mere output could be achieved.

2·63 On examining the data supplied by the applicant Company and the history of their various applications as well as correspondence with Government, some conclusions clearly stand out. It is obvious that the concept of capacity is one where rigidity is not feasible and, specially over a period of time, improvements can lead to significant additions to capacity from the same plants. A persistent attempt at surreptitious additions to capacity is however clearly against the conditions of an industrial licence under the I (D&R) Act. While it is understandble that in some types of plants, an economical unit may have capacity larger than what is required for meeting the need for a particular input in relation to the sanctioned capacity of the final output, what we see here are examples of large capacities being added to various units even where the existing capacities were more than adequate to meet the requirements. In a number of items, additional capacity was created on the plea that standby spare capacity was essential in a hazardous industry like blasting explosives. But this capacity was not maintained as standby spare capacity; it was utilised whenever possible for increasing regular production and further standby capacity was created on a similar plea. The clearest example of this is to be found in the latest addition to capacity in 1974. Standby spare capacity was sanctioned initially because of the experience of the 1973 explosion. This capacity was permitted to be utilised temporarily to meet the then current shortages. However, IEL utilised this standby equipment on a regular basis and claimed installed capacity of 35,000 tonnes per annum. The Government authorities appear to have recognised this position in each case *post-facto*. In the present instance, this has two implications, which are important for the present enquiry. Firstly, IEL would now claim (they have claimed this in their application dated June 2, 1975) that they have no standby spare capacities when capacity for 35,000 tonnes is recognised. They will thus inevitably have to be permitted to instal standby equipment for the purpose of ensuring that they can maintain steady output of 35,000 tonnes (or36,000 tonnes as recognised by Government) per annum. Secondly, from the information given in Part II of Appendix VII, it will be seen that their potential capacity in a number of plants is already such that they can easily produce about 42/44 thousand tonnes per annum of NG explosives.*

The only limitation appears to be in their nitric acid plant. It has, however, been explained by them that the supply of ammonium nitrate from outside will release nitric acid capacity for nitration of glycerine/glycol. Thus that bottleneck can also be got over. By their own admission, therefore their present NG plant at Gomia is capable of producing an output of 42/44,000 tonnes per annum without any significant additional investment or plant installation. This should be seen against their production of NG explosives to the extent of 35,327 tonnes in 1975. Even without any special permission, or further sanctioning of capacity, investment or capital goods imports, IEL will thus be in a position to carry out a 25% expansion in their output.

2·64 In addition to this, IEL also have a pilot plant for the production of slurry explosives which is capable of producing 4,500 tonnes per annum of such explosives. At present they are producing only 1,450 tonnes per annum.

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*It needs to be specially noted in this connection that this information about potential capacity was obtained by the Commission from IEL after a considerable probing, specially at the public hearing. The information about the individual plants and their potential capacities was obtained by the Commission only after the public hearing by a letter of IEL dated April 9, 1976. Till that time ,IEL and maintained a stand that if all their applications were cleared "our maximum production capacity can be 50,000 tonnes which we feel is necessary to meet the projected demand. No security standby capacity has been provided and total production could be obviously affected if accidents occur." What we now find is that even if the present application for an additional capacity of 15,000 tonnes is not approved, IEL is likely to have, may be with some balancing equipment, a capacity to produce 42,000/44,000 tonnes of NG explosives and 4,500 tonnes of slurry explosives.

CHAPTER III

THE PROPOSAL, JUSTIFICATION AND OBJECTIONS

History of the Application

3·01 IEL applied to the Department of Company Affairs under the MRTP Act on 31st August, 1974, to effect substantial expansion by additionally manufacturing 15,000 tonnes of commercial blasting explosives. The corresponding application under the I (D&R) Act had been initially made by the Company in June, 1971. It was pointed out there that, in order to maintain self-sufficiency in the country in regard to commercial explosives, IEL had utilised all the plants, including various standby units, and thus was able to produce 28,000 to 30,000 tonnes of explosives per annum. The demand for commercial blasting explosives was expected to increase from 34,000—35,000 tonnes in 1971 to 45,000 tonnes by 1975-76 and 60,000 tonnes by 1980-81. In order to be able to meet this demand in the most economical and efficient manner, IEL was proposing an expansion in its manufacturing capacity for blasting explosives by 15,000 tonnes per annum. The proposal was to set up a new unit in a backward area of Central/Western India. The proposed plant was to be designed to make it flexible and produce both Nitroglycerine (NG) blasting agents and slurry explosives. The plant was to draw a part of its input requirements from the existing plant at Gomia which was to produce an additional quantity of NG base by adding balancing equipment. This 'master-mix' was to be transported from Gomia to the new plant. Supplies of ammonia were to be obtained from one of the fertiliser plants in Central/Western India. The capital cost of the project was indicated at Rs. 775 lakhs excluding the cost of land which was to be indicated subsequently. The cost of imported plant and equipment was put at Rs. 60 lakhs. It was stated that "no fresh foreign collaboration or know-how will be required for this project." It was claimed that this proposal would provide the cheapest and most attractive way of adding a capacity of 15,000 tonnes to the blasting explosives industry in the country, and it could be put up in the short time of 18 to 24 months.

3·02 This application of the Company was considered by the Licensing Committee on 20th December, 1971. The Directorate General of Technical Development (DGTD) recommended this application as industrial explosives were included in the list of 123 industries believed to be having sustained demand and scope for investment and capacity angle was no longer a constraint for considering applications for setting up of new units or for substantial expansion in this field. The Department of Mines, however, mentioned that it was considering a proposal in the public sector. In view of this and also in view of the regularisation of IEL's capacity at 28,000 tonnes, and sanctioning of a capacity of 15,000 tonnes to IDL Chemicals (IDL), this Department thought that there was no scope for further licensing. The Licensing Committee then recommended the rejection of the application. This fact was intimated to the Company on April, 3, 1973*, and IEL was asked to make a representation about this if they were interested in doing so. Accordingly IEL submitted a representation on April, 24, 1973. It was emphasized in the representation that, according to the market survey carried out in 1971, the demand for commercial explosives would be at the level of 60,000 tonnes per annum by 1980-81. The targets for coal and other mining operations had since then been increased by as much as 30% and therefore the requirements of explosives would increase substantially say, to 75,000 tonnes per annum. Therefore an installed capacity of 90,000 tonnes per annum had to be created by that time. As against this, the installed capacity even after taking into account a public sector plant with 20,000 tonnes per annum capacity would be no more than 60,000 tonnes per annum by the end of the 5th Five Year Plan. Thus, there would be serious shortages, specially in view of the fact that "a new explosive plant would take between three to five years to reach the designed rate of production." It was reiterated that IEL had the know-how "to put up this additional capacity with minimum expenditure of foreign exchange and in the shortest possible time." It was also stated that the proposal did not involve any payment for know-how. It was, therefore, requested that IEL should be allowed "to substantially expand by setting up a unit for the manufacture of commercial explosives in the backward areas of Central/Western India and to increase their total manufacturing capacity to 45,000 t.p.a."

3·03 This representation was considered by the Licensing Committee in June, 1974. The Committee recommended approval of the proposal for a capacity of 10,000 tonnes subuject to approval under the MRTP Act. The position with regard to the capacity and demand for industrial explosives was reviewed and a note was put up to the Licensing Committee in August, 1974. A "realistic estimate of demand" was again worked out and it was also observed that units in the public sector may take a long time to implement their projects. The advantages in the IEL proposal such as possibility of speedy implementation were reconsidered. The Note also observed that since new proposals for the manufacture of explosives were not coming up and the projects in the public sector were likely to be delayed, permission may be accorded for expansion of the existing units so as to meet the future demand. As the gestation period in the case of explosives was as high as five years, it was considered important to plan long term measures and immediately initiate projects which would fructify in the 6th Plan period. It appears that the Licensing Committee reconsidered the Company's application in its meeting held in July, 1975, and recommended approval for a capacity of 15,000 tonnes subject to certain conditions. IEL were asked to apply under the MRTP Act in August, 1974, which they did in the same month. This application of IEL was considered by the Advisory Committee in April, 1975, but the decision on it was deferred at the request of the Department of Industrial Development which wanted to have a fresh look at the proposal. It was again considered by the Advisory Committee in September, 1975, and it was decided to refer the proposal to the MRTP Commission for enquiry and report.

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*It is interesting to note that this intimation was sent after a gap of over a year and that too after a major explosion had taken place in the Gomia works of IEL on March 3, 1973 and there was a serious apprehension of large scale shortage of explosives as a result of the explosion.

3·04 The application made by IEL on 31st August, 1974, was broadly along the same lines as the earlier application under the I(D&R) Act which had been submitted in 1971. It was pointed out that IEL were currently manufacturing commercial blasting explosives at Gomia at the rate of 31,000 tonnes per annum. The market for commercial explosives was expected to grow from the current level of some 46,000 tonnes to about 1,10,000 tonnes by 1980-81. "As pioneers in the field of explosive, manufacture we would expect to participate in meeting part of this expanding requirement. Our proposed new factory can be established by us with the minimum requirements of rupee and foreign capital and without having to purchase foreign know-how". The plant was expected to provide an alternative manufacturing site in Western/Central India, where the mining industry was growing very rapidly and which would therefore provide a substantial market for explosives by 1980-81. The site was to be chosen in a backward district, at the same time keeping in view the advantage of having a site which would be close to the consuming centres in Madhya Pradesh, Rajasthan and Maharashtra. The proposal was to "effect substantial expansion of our undertaking by the manufacture of 15,000 tonnes of commercial blasting explosives. No details were given about the types of explosives to be produced—NG or Slurry—leading to an impression that the approach was the same as that in the I(D&R) Act application of 1971.*

It had been mentioned that while the annual installed capacity was 28,000 tonnes per annum, and thus the annual installed capacity after expansion by 15,000 tonnes would be 43,000 tonnes, "by utilising the security standby equipment, production could be increased by 7,000 tonnes per annum". In this application, however, the estimated capital outlay was put at Rs. 1650 lakhs out of which the foreign exchange requirement was put at Rs. 114 lakhs. This last was to be obtained by way of a foreign exchange loan from a financial institution.

3·05 It may be noted that this proposal underwent some changes shortly after the MRTP application was filed. IEL made an application in December, 1974, for obtaining the approval of Government for foreign collaboration. This application made no reference to the applications under the I(D&R) Act and the MRTP Act for substantial expansion. The application was made for permission to pay royalty to Canadian Industries Ltd. for S1 slurry technology. As a matter of fact, it was stated, "the introduction of this new type of explosives will go to replace older types and not be additional and the total production will remain unchanged."

3·06 It was only in reply to the questionnaire sent to IEL by the Commission that IEL made available their latest thinking which indicated substantial modification of the original proposal. It was now envisaged that out of the additional capacity of 15,000 tonnes for producing explosives proposed under the application, capacity for about 5,000 tonnes was to be located in their present factory at Gomia for the production of additional quantities of NG based explosives; the remaining about 10,000 tonnes was to be created at a site in a backward district of Madhya Pradesh for the production of Slurry explosives. It was also mentioned that the Company's proposal to collaborate with Canadian Industries Ltd. for the import of technology for the manufacture of Slurry explosives had been approved by the Government on 27th June, 1975, and that this would be formalised shortly through a collaboration agreement. "The know-how to be acquired through this agreement will be available to the Company for the current proposal". This information was sent to the Commission under IEL's letter of 19th December, 1975. It should be mentioned that a further modification to the proposal was made by the representatives of IEL at the Public Hearing. It was pointed out that out of the proposed addition to capacity of 15,000 tonnes, about 6,500 tonneswould be for NG explosives and at Gomia, and the remaining would be for slurry explosives and at the new site. This was in view of the fact that already a capacity for producing about 1,500 tonnes of slurry explosives had been established at Gomia. Subsequently, in a communication dated April 5, 1976, IEL informed the Commission that what was contemplated was that, "after the proposed expansion, Gomia will produce 40,000 t.p.a. NG explosives and the new site will produce 10,000 t.p.a. Slurry. Increase of NG explosives production at Gomia will thus be 6,500 t.p.a. The existing 1,500 t.p.a. slurry explosives plant at Gomia will be used for research and development work after the slurry plant at new site starts commercial production". In addition to this, the Commission also learnt from IEL that they had applied in June, 1975, to the Central Government under the I (D&R) Act for their existing manufacturing capacity in the field of blasting explosives to be regularised at 35,000 tonnes. The representatives of the Ministry of Industrial Development informed the Commission at the Public Hearing that this request of IEL had been agreed to and that the orders relating to this would be issued shortly. These were issued *vide* Department of Industrial Development letter No. II : 76(76) dated June 3rd 1976, permitting an installed capacity at 36,000 tonnes on maximum utilisation. Thus, the proposal now is to expand the total capacity of IEL from 36,000 tonnes to 51,000 tonnes per annum.

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*In the IDR application of 1971 it had been stated that the proposed plant at the new site would be so designed as to make it flexible capable of producing both NG and Slurry explosives as required by the market.

3·07 The public Notification issued by the Commission was based on the information available from the application made by IEL under the MRTP Act and therefore could not mention the facts relating to foreign collaboration requirements or the division of the expanded capacity between Gomia and the new site. One unintended result of this was that the comments as well as objections received by the Commission were based on the information available in the Public Notification. Many objectors pointed out that this had taken them by surprise.

The Final Proposal

3·08 Thus the final proposal of IEL is for the expansion of the capacity for the manufacture of industrial explosives from 36,000 tonnes per annum to 51,000 tonnes per annum. The proposal envisages expansion in the capacity for the manufacture of NG based explosives by 6,500 tonnes per annum at the existing plant at Gomia, raising it from 34,500 tonnes at present to 41,000 tonnes. It is also proposed to establish facilities for the manufacture of 10,000 tonnes of slurry explosives a new site in a backward district of M.P. It has been indicated by the company that the expansion at Gomia could be implemented within 12 to 18 months of the receipt of Government approval, 75% of the balance within 24 to 30 months, and the remainder gradually thereafter.

3·09 It had been indicated by the Company that on the basis of the installed capacity at Gomia, it will be possible for them initially to increase the production of intermediaries required for the manufacture of NG based explosives by making marginal improvements and de-bottle necking. To meet in full the requirements for the proposed expansion, they will need additional quantities of intermediaries like nitric acid and ammonium nitrate, and the production facilities for these are proposed to be installed at the new site. These intermediaries will be produced at the new site and transported to Gomia to meet a part of the requirements there. The proposal implies the setting up of the following additional plants:—

TABLE 22

Major Plants proposed to be installed by IEL for the expansion Proposal

Major Plants at New Site :	
Nitric Acid Plant	I off, capacity 10,000 t.p.a. equivalent explosives production 15,000 t.p.a. (10,000 t.p.a. at new site and 5,000 t.p.a. at Gomia).
Ammonium Nitrate Plant	I off, capacity 10,000 t.p.a. equivalent explosives production 15,000 t.p.a. (10,000 t.p.a. at new site and 5,000 t.p.a. at Gomia).
Sensitiser Plant	I off, capacity 2,700 t.p.a. HAMN liquor, equivalent explosives production approximately 7,500 t.p.a. small diameter slurry.
Dope House	One house with facilities to weigh and sieve ingredients, capacity adequate for 10,000 t.p.a. slurries.
Mixing and Cartridging Houses	Two houses each containing equipment for mixing and cartridging of 5,000 t.p.a. slurry explosives.
Packing Houses	Two houses each containing facilities adequate for packing of 5,000 t.p.a. slurries.

Major Plant Additions at Gomia :

Sulphuric Acid Pot Concentrator	One off, capacity 9,000 t.p.a. equivalent explosives production approximately 9,000 t.p.a.
Ingredients Preparation Plant	Extension to the existing Ingredients Preparation Plant to accommodate additional load for drying and grinding of woodmeal.
Dope House	One Dope House with facilities adequate for weighing and sieving of ingredients for 6,500 t.p.a. NG explosives.
Biazzi Cartridging House	Two off cartridging houses with cartridging machines. The capacity of each house will be 4,500 t.p.a. for 32 mm diameter cartridges and 2,500 t.p.a. for 25 mm diameter cartridges.
Mixing and Packing Houses	With utilisation of stand-by mixing and packing houses installed in 1974, the mixing and packing capacities at Gomia will be adequate for 40,000 t.p.a. explosives. Hence, no additional mixing or packing house is proposed.

Source : The applicant Company.

3·10 As regards production pattern, it has been indicated that no particular changes is contemplated in the production of NG based explosives. The slurry based explosives to be produced at the new site will include both explosives of large and small diameters; about 7,000 to 8,000 tonnes will be of HAMN sensitized type.

Employment

3·11 The number of persons employed by the Company was 4,385 on September 30, 1975. Out of this about 2,500 were employed in the explosives unit at Gomia. The Company has estimated that as a result of the proposed expansion the number of persons employed by the company will increase by about 500. No break-up of this number between Gomia and the new site is available.

Raw Material Requirements

3·12 The applicant company has stated that the requirements of raw materials for the two types of explosives would be as per the following table :

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TABLE 23

Requirements of raw materials for the expansion proposal

(for production of 1000 tonnes)

Name of the raw material	Quantities required (tonnes)	Approximate value ('000 Rs.)	Source of supply
(1)	(2)	(3)	(4)
(a) *Slurry Explosives :*			
Ammonium Nitrate	640	1600	Indigenous
Sodium Nitrate	135	405	„
Ethylene Oxide	100	1000	„
Nitric Acid	93	242	„
Aluminium Powder Thickening and Cross Linking Agents	38 7	600 105	„ „
Surfactuants	4·5	81	„
Packing materials	As required	..	„
(b) *Nitroglycerine Explosives :*			
Nitrocotton	6·0	176	Partly* imported
Sulphur	58	62	Imported
Ammonia	357	1086	Indigenous

TABLE 23—Contd.

Requirements of raw materials for the expansion proposal

(for production of 1000 tonnes)

(1)	(2)	(3)	(4)
Salt	130	29	Indigenous
Soda Ash	21	27	„
Barytes	35	13	„
Glycerine	51	1185	„
Ethylene Glycol	35	453	„
Furnace Oil	107	94	„
Match/Paraffin Wax	38	93	„
Guar Gum	2	18	„
Manila Paper	35	333	„
Woodmeal	27	14	„
Packing Materials	As required	..	„

*Imported quantity would be approximately 1·7 tonnes of value Rs. 34,000/-

Source : The applicant Company.

The exact quantities of the various materials would vary according to the product-mix which would be finally produced. Most of the raw materials would be indigenously available. Only a small part of raw materials required for NG based explosives would have to be imported. Their value would be about Rs. 34,000 for every 1,000 tonnes of NG explosives. A small quantity of nitro cellulose may also continue to be imported for a few years as satisfactory indigenous sources are yet to be developed.

Foreign Collaboration

3·13 As mentioned earlier, the applicant Company has already obtained the approval of the Government of India for foreign collaboration with M/s. Canadian Industries Ltd. (CIL) for the manufacture of Slurry explosives. It may be noted that this Canadian Company is a subsidiary of ICI (U.K.) It is said to be the largest producer of explosives, chemicals and allied products in Canada. It has been stated by IEL that CIL's Central Research Laboratory near Montreal is one of the leading research groups in Canada. CIL operates six major explosives manufacturing plants in Canada, whose production exceeded 1,80,000 tonnes of explosives and blasting agents last year. 65,000 tonnes of these explosives, i.e., 36% were of the slurry type. It has been claimed that CIL's long experience in the use of explosives combined with its excellent research facilities and personnel have led to many notable 'firsts' in explosives technology. Some of these are:—

"*Short-period Caps*—These detonators introduced the millisecond blasting technique to both surface and underground operations as early as 1947.

"*Hydromex Slurries*—The World's first commercial ANTNT-water slurry explosive. Introduced in Canada by CIL in 1958, providing reliable performance with economy and safety, Hydromex was the forerunner in the development of the widey diversified range of slurry explosives now available from CIL.

"*Pneumatic Loading System*—The most complete range available in the explosive industry for bulk-loading AN/FO. This important programme began in 1960 when AN/FO blasting agents were rapidly being introduced in underground mines.

"*Anodet Delay Blasting System*—Introduced in 1964, this non-electric system eliminated the static electricity problem met during bulk-loading of AN/FO blasting agents in underground operations. It was a major development in the methods of initiation available for AN/FO in underground work.

"*Portable AN/FO Mixer*—A unique miniaturized AN/FO blending unit which brings the advantages of bulk handling to the small volume surface blasting operation. Introduced in 1967 it was the first of its type brought into use in North America".

3·14 It has been stated that CIL produced the area's first commercial ammonium nitrate—TNT—water slurry explosive—in 1958. These "Hydromex" slurries were the fore-runner of a wide range of slurry explosives now marketed by CIL. CIL now also markets non-TNT, metalized bubble sensitized, NCN type slurries and holds world wide patents for this product. For small diameter non-permitted slurries, in addition to using a licence of Ireco of USA, relating to the process for producing paint fine aluminium based slurries, CIL has also developed products based in their own R & D and formulated a small diameter slurry composition of their own. Realising the limitations and hazardous nature of some of these products, it has been stated that CIL has now developed slurries based on a chemical sensitiser, Hydroxy Alkyl Mononitrate (HAMN). These explosives included both large and small diameters. CIL holds a number of world wide patents in this field.

3·15 IEL's foreign collaboration agreement as approved by the Government involves the payment of royalty at 4% subject to Indian taxes for a period of five years. The royalty will be calculated on the basis of the net ex-factory sale price of the product (exclusive of excise duties) minus the landed cost of imported components. It has been laid down that the payment of royalty will be restricted to the existing licenced capacity plus 25% in excess thereof. If producion exceeds this quantum, prior approval of the Government would have to be obtained regarding the terms on which royalty is to be paid for such excess production. It is not clear from the letter of approval whether the relevant licenced capacity would be only that for Slurry explosives or the total licensed capacity for explosives as such. Probably the former is implied.

3·16 The Company has provided a clarification to say that the foreign collaboration agreement is for a particular kind of Slurry explosives, *viz.*, those sentsitized with Hydroxy Alkyl Mononitrate. The Government approval* however merely speaks about collaboration "for the manufacture of slurry explsovies" and terms of royalty on the basis of "existing licensed capacity plus 25% in excess thereof" and does not confine the payment of royalties to production based on this particular type. We do not know whether it is proposed to include these separately as a part of the proposed agreement. The Company has further stated that the agreement will provide for payment of royalty for five years from the start up of commercial production or eight years from the date of agreement whichever is earlier.

Capital Cost of the Project

3·17 As indicated earlier, in its application made in June, 1971, the capital cost of the project was put by the Company at Rs. 770 lakhs as per details below:

Land	To be intimated subsequently
Plant and Machinery:	
Indigenous	Rs. 527 lakhs
Imported	Rs. 60 lakhs
	Rs. 587 lakhs
Others	Rs. 188 lakhs
Grand total	Rs. 775 lakhs

In the application under the MRTP Act made in August, 1974 the cost of the proposed expansion was indicated as follows:

TABLE 24

	Capital cost of the project
Land	Rs. 100 lakhs
Building and site development	Rs. 200 lakhs
Plant and Machinery :	
Indigenous	Rs. 936 lakhs
Imported	Rs. 114 lakhs
	Rs. 1050 lakhs
Working Capital	Rs. 300 lakhs
Grand total	Rs. 1650 lakhs

Source : The applicant Company.

3·18 During the course of the enquiry, the Commission obtained more details relating to the capital cost of the project. Detailed break-up of capital expenditure for the expansion at Gomia and for the establishment of new facilities at the new site have been obtained and are presented in Appendix VIII. The position is summarised below:

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*Letter No. FC. 120(75) 569(74)/75 dated 27-6-75 from the Ministry of Industrial Development and Civil Supplies.

TABLE 25

*Break-up and phasing of Capital Cost of the proposal**

(Rs. lakhs)

Year ending 30th September	1976			1977			1978			Total		
	Gomia	New Site	Total	Gomia	New Site	Total	Gomia	New Site	Total	Gomia	New Site	Grand Total
Land	..	100	100	..	..	..	..	..	..	..	100	100
Plant & Machinery	50	20	70	295**	395	690	..	290	290	345	705	1050
Building and Site Development . .	10	30	40	5	75	80	..	80	80	15	185	200
TOTAL	60	150	210	300	470	770	..	370	370	360	990	1350

*Based on the assumption that D & R licence is received in June, 1976.

**This includes an amount of Rs. 200 lakhs being Gomia's share of Ammonium Nitrate and related facilities to be installed at the new site.

Source : The applicant company.

3·19 The details relating to the Plant and Machinery proposed to be imported are given below:

TABLE 26

Plant and Machinery proposed to be imported

	Item	CIF Cost (Rs. lakhs)
1.	Nitric Acid Plant	24
2.	Ammonium Nitrate Plant	10
3.	Slurry Cartridging and Sensitiser Plants	41
4.	NG Explosives cartridging	9
5.	Ammonia storage and rail tankers	24
6.	Greenbats	6
	Total	114

Source : The applicant Company.

Justification of the proposal

3·20 *Demand—Supply Balance*—The Applicant company,at different stages in the discussions of the proposal, have put forward various facts and arguments in justification of this proposal. The first point in justification is that the demand and supply projections for blasting explosives indicate that additional capacity for the production of this commodity needs to be created in the country. As the present proposal has been under discussion right from 1971, the demand and supply projections have also undergone changes. In the I (D & R) Act application of 18th June, 1971, it had been pointed out that the demand for blasting explsovies, which was said to be 34-45,000 tonnes at that time would grow to 45,000 tonnes by 1975-76 and 60,000 tonnes by 1980-81. Based on IEL's experience of manufacture and marketing, the pattern of demand and availability of supplies for a ten years period from 1971 was given as follows.:—

TABLE 27

Demand and supply position relating to Explosives—1971 *to* 1980-81

	1971			1975-76			1980-81		
	Small Dia-meter*	Large Dia-meter**	Total	Small Dia-meter*	Large Dia-meter*	Total	Small Dia-meter*	Large Dia-meter*	Total
Demand	25,000	7,500	32,500	34,000	11,000	45,000	44,000	16,000	60,000
Supply	22,000	7,500	29,500	28,000	11,000	39,000	28,000	16,000	44,000
Short-fall	3,000	..	3,000	6,000	..	6,000	16,000	..	16,000

*Including LOX, etc.

Source : The applicant Company.

At that time IEL's idea was that the small diameter explsovies would essentially consist of conventional NG based explsovies as slurries had not yet been properly established in this area. Though the demand for NG based explosives was expected to grow at a rate of 30% the major growth was expected to be in slurry explsovies where the market would grow by 1981 to 200% of 1971. IEL estimated that if steps to instal additional capacity were not taken quickly 30,000 to 50,000 tonnes explosives may have to be annually imported by 1980.

3·21 In the MRTP application of August 31, 1974, IEL pointed out that the proposed expansion was essential to meet the projected requirements of explosives in the 5th Five Year Plan period. IEL stated:

> "We are currently manufacturing commercial blasting explsovies at Gomia, Bihar, at the rate of approximately 31,000 tonnes per annum. At present there is a shortage of small diameter

> explosives and imports are being arranged to meet the industry's requirements. This shortage is expected to aggravate in the next few years, not only because of the normal growth in demand, but also because the requirements of explosives are expected to rise at a rate much faster than hitherto due to the increased emphasis on the mining of coal and on the building of infrastructural facilities such as irrigption and power projects. We accordingly expect the market for commercial explosives to grow from the current level of some 46,000 tonnes to about 110,000 tonnes by 1980/81."

3·22 The position as put forward by IEL during the Commission's enquiry may be stated as follows:

The consumption of commercial blasting explosives has been growing steadily with the increase in industrial activity. The world energy crisis has led to the need for increased dependence on coal which has caused a further spurt in the demand for explosives. IEL pointed out that they had carried out elaborate analysis of the projected needs of various sectors of the economy which consumed explosvies, and on that basis come to the following conclusions about the demand for explsosives at the end of 5th and 6th Plan period:—

TABLE 28

Expected Demand for Explosives—1978-79 *and* 1983-84

	1978-79	1983-84
Mining	67,000	109,000
Non-Mining	19,100	31,000
	86,100	140,000

Source : The applicant Company.

3·23 As compared to this projection of demand, it was pointed out that the installed manufacturing capacity as at present was stated to be as follows:—

IEL	35,000 tonnes
IDL	15,000 ,,
FCI LOX	8,000 ,,
	58,000 ,,

Taking into account the expected shortage of explosives, a number of letters of intent and licences have been issued since 1960. However, IEL further started, taking those cases which are being pursued to any serious extent, the position is that expansion and new licences/letters of intent are available for an additional capacity of 64,000 t.p.a. as below, making a total of 122,000 t.p.a.

Licences :

IDL	7,500
Narendra	10,000
DGOF/CIL	6,000
	23,500

Letters of Intent :

IDL	7,500	
IBP	18,000	
FCI	15,000	"(The letter of intent we believe has not yet been issued)"
Total	40,500	
G.Total	64,000	

3·24 A further point made by the applicant company was that it was not merely enough to ensure that adequate capacity is licensed to provide for production of 85 to 91,000 tonnes per annum on the assumption of 80% utilisation of plant and machinery. The explosives technology is complex and considerable manufacturing discipline is required, both these take time to imbibe. Skills have to be built up, proven recipes have to be used and statutory regulations have to be followed. All this involves time; "in short, not every one can make explosives, and those who do, have a learning period". For these reasons, IEL believed that, out of the licensed capacity 122,000 tonnes per annum, the production by 1978-79 would only be of the order of 70,000 tonnes per annum, leaving a shortfall of 16,000 tonnes. Similarly, if no more capacity was licensed there would be a shortfall by 1983-84 of 33,000 tonnes. To support this, IEL pointed out that the balance of demand and supply, without IEL's proposed expansion, may be estimated as follows:—

TABLE 29

Balance of Projected Demand and supply for explosives

('000 tonnes)

	1976—77	1977—78	1978—79	1979—80	1980—81	1981—82	1982—83	1983—84
Demand . . .	62	74	86	98	109	119	130	140
Supply . . .	57	61	70	84	90	97	102	107
Short-fall . . .	5	13	16	14	19	22	28	33

Source : The applicant Company.

It was, therefore, suggested that "even with IEL's proposed expansion the shortage of explosives will continue and that without it the imbalance will be aggravated further. Indeed, if the past experience of the learning curve in this field of technology is any guide, the supply estimates are optimistic as most of the additional capacity would be installed by new entrants and the gap could in fact turn out to be much larger than shown above." It was, therefore, claimed by the applicant company that its proposal needed to be approved in view of the necessity to ensure the creation of this capacity to avoid shortage in an essential industrial supply.

3·25 An important point made by the applicant company in this connection was that, of the many new licences in this field, only IDL Chemicals have had experience of explosives technology. Even their record shows that the learning curve in the industry is a long one. It would therefore be quite unrealistic and over-optimistic to assume that new entrants, with no experience in this field, can attain the rated planned capacity in a short time such as three years. It was further pointed out that the other proposals before Government are based mainly on the production of small diameter Slurry explosives. It was submitted on behalf of IEL "in spite of the advantages which Slurry explosives are credited with, the technology is still a developing one and has a long way to go before all problems connected with it are solved, specially in the case of small diameter slurry explosives. In addition to the special problems regarding what are called 'permitted explosives', which constituted a large proportion of the Indian explosives market, even in the non-permitted explosives, slurries have not made their mark in all the areas of use, *e.g.* explosives of 25 mm. diameter—the preferred size among non-permitted explosives in India. To all this, IEL pointed out, "must be added the understandable conservatism of the explosives consuming industries particularly coal mining to readily accept new products without prolonged trials and experience." In view of his, IEL pointed out that it may be hazardous not to ensure the supply of well-tried explosives through the expansion of IEL. A shortfall of even 5,000 tonnes of explosives could have a serious impact on the production of coal and therefore on the economy in general.

3·26 It has been pointed out that, in view of the risks involved, the Ministry of Energy (Department of Coal) has suggested that the capacity to be sanctioned should exceed actual capacity needed by some 25%. This, combined with the fact that the possibilities of a new entrant being able to set up a new unit within the next two years so as to commence production and make available supplies acceptable to the consumer by 1978-79 being almost nil, strongly suggest (according to the IEL) that the proposal by a well-established manufacturer like IEL needs to be approved.

Why IEL?

3·27 It is the contention of the applicant Company that the likely shortfall in the supply of explosives can be reduced most effectively and within a very short time through their proposed expansion. The applicant's have mentioned a number of factors in support of this claim.

3·28 The applicants have stated that it is true that they are a company with 51% shareholding owned by ICI (U.K.) and also that they are a large industrial house. However, it is their contention that the activities in which they are engaged are also important and since these are in the core sector and are capital intensive their large size is unavoidable. It has also been suggested that shareholding by I.C.I. (U.K.) is a great source of strength enabling them to have continued access to sophisticated explosive technology and technical information, and support from "a world leader in the chemical industry".

Past performance

3·29 IEL has claimed that they are a "joint sector" company, one of the first of its kind to associate the Government of India with a foreign partner with the objective of importing sophisticated technology to support the domestic manufacture of a basic product. In line with the original "Declaration of Intention" at the time of the initial proposal, the Company has ensured growth in the production of explosives in response to the needs of the economy. From a modest start with production of a limited range of explosives in 1958, the Company has now developed into an integrated complex producing a wide range of explosives and accessories and developed a system of expert technical service for the benefit of its consumers. Increase in production levels and diversification have been achieved as a result of high technical and managerial competence, through operating existing plants at high levels of productivity and by ensuring a short gestation period for setting up new plants.

3·30 It has been pointed out that, through timely steps and proper technical management the Company has ensured that there would be no shortage of explosives for meeting the basic requirements of various categories of consumers. It has been claimed that there has hardly been any occasion when the production or operations in any vital sectors of the economy, including defence, have suffered as a result of the shortage of required explosives or accessorires. Special mention has been made by the applicant company of the fact that satisfactory supply of products together with necessary technical advice has made a significant contribution to the development of border roads, an essential requirement of the country 's defence effort. Similarly, in view of the importance that coal production has come to have as a result of the energy crisis, the applicants have made sure that the coal industry will not suffer by shortages of explosives which are vital for coal production. The company has further claimed that, while maintaining and increasing supplies so as to meet the needs of important sectors in the national economy, they have refrained from exploiting their position as a major producer. This is both because of the efficiency of their production operations and the deliberate pursuit of a responsible price policy. The applicant company was able to maintain its prices practically unchanged and sometimes even reduced them between 1959 and 1972. It was only from 1972 onwards, when with very large increases in costs it became impossible to hold the price line, that the company resorted to price increases in regard to its explosives products. This will be indicated by the Statement regarding effective prices submitted by the applicant company (see Appendix VI).

3·31 During 1966-68, the Company diversified into the fertiliser industry by setting up an efficient plant and achieved a high level of plant utilisation which, it is claimed, can be considered as further evidence of the Company's competence.

Professional Management and Technical Competence

3·32 It has been claimed that IEL is a professionally managed Company. All staff, including the members of the Board of Directors, are selected on the basis of their professional qualifications and experience. It has also been indicated that IEL and its senior personnel have benefited to a great extent because of their association with the ICI (U.K.) in matters of training and access to technical information.

3·33 It is the Company's contention that, due to the hazardous nature of the product, manufacture of explosives requires a high degree of technical competence, and rigid safety standards have to be observed. The technical expertise needed is of a very specialised nature. It has been pointed out that greatest importance is attached by IEL to quality control at all stages of manufacture. Elaborate systems of quality control in respect of both raw materials and finished products, including sampling, testing and chemical and performance tests on finished explosives have been laid down. There are also stringent safety requirements under statutory regulations on the storage, stability and sensitivity to detonation of explosives. The Company not only follows these, but has also developed its own special regulations to ensure quality and safety, the later being formulated on the basis of its own experience as well as the experience of the parent company. It has been stated that no diviation from these high standards of safety is permitted as it can result in serious consequences and may lead to deterioration of explosives on storage, or poor performance or even misfiring in the field; this later is very much dreaded by mining people not only because of possible loss in production but also because of the risks involved to mining personnel.

3·34 The company has also maintained an enviable safety record over the years. In the first 15 years of its operations, there had been no fatal accident, an achievement which it is claimed may be considered unique in the history of explosives manufacture in the world. The Company had a major accident in 1973 but it is claimed that, because of their knowledge, confidence and expertise, they were able to rebuild the damaged plant within the shortest possible time and, since then, there has again been a high level of safety. It has been indicated that the Company has been awarded a total of 16 national safety awards in competition with all chemical, fertiliser and explosives factories in the country.

3·35 It has been contented by the Company that the need to back the sophisticated and specialised technology involved in the manufacture of this product by a first class Research and Development set-up was recognised by them right from the beginning. It is claimed that, over the years, this department has received much attention and to-day it is one of the most important centres in the world for R & D in explosives. Apart from the work of adapting different products to suit local condition and specific needs, and developing indigenous raw materials, the R & D department has also developed new products. The company had applied and obtained a number of patents based on its research findings (See Appendix IV). It is the Company's claim that they were the first in India to undertake work on Slurry explosives and Dry Blasting Agents, and also the first to offer large diameter slurries in the country, as early as in 1968. It has also been claimed that they were the first to put in the market cartridges of small diameter Dry Blasting Agents, in 1973. As a result of considerable work of pioneering nature on small diameter slurries carried out since 1969, the Company claims to have generated a wealth of background information relating to the 'mechanism of sensitisation of slurries', 'formulation techniques' and 'mechanical cartridging equipment'. Considerable work has also been done to evalute several possible sensitizers and this has demonstrated the need for a chemical sensitiser. It is the Company's contention based on its own research, that HAMN type sensitisers, the technology for the use of which is being obtained by the Company from abroads, are the most promising. In view of the considerable work done by the Company in this field, they claim that they will be able to develop these types of explosives in the shortest possible time. The company claims to have developed a Slurry Pump Truck for bulk transportation of slurries to the blasting site. The company also claims to have developed explosives systems for underwater blasting.

3·36 Because of the hazardous nature of the product, technical service to the consumer is an important aspect of the work of an explosives manufacturer. To meet this requirement, the Company has established a full scale Technical Service Development Department, which provides services all over the country to large as well as small customers, and also in the export market. The company's Technical Service Department is manned by well-qualified and experienced mining engineers. Apart from attending to the technical problems faced by the customers, the Department also satisfies the specialised requirements of different segments of industry and individual consumers. Its special contributions as claimed by IEL have been already mentioned in Chapter II above.

3·37 It has been indicated by the Company that because of the risks involved in the manufacture of explosives, the correct selection and design of manufacturing equipment is of utmost importance. The Company has achieved import substitution on a large scale and saved considerable foreign exchange by developing certain equipments. This achievement is claimed to be all the more important because extreme care has to be taken in the selection of equipment and its components due to the hazardous nature of the manufacturing process. The company claims to have built up a fund of knowledge in designing and fabricating equipment indigenously and it is claimed that foreign exchange to the tune of Rs. 250 lakhs has been saved over a period of years. It is stated that the current state of slurry technology is such that certain equipment will have to be designed and perfected, specially for mechanising and cartridging, calling for a high order of engineering skills and experience. It is the Company's claim that they have developed such expertise.

Welfare of Employees

3·38 IEL have claimed that they pay considerable attention to the welfare of their employees. An area which had been only a jungle before has been transformed into a large and well laid out housing colony with modern amenities and facilities for educational, medical, recreational and other needs.

It is also claimed that in an area where there is considerable poverty and unemployment, the Company has built up traditions as a modern and enlightened employer. The wage level of the Company's employees is said to be one of the highest in that part of the country.

Social Responsibility

3·39 It has been further pointed out that since its inception, IEL have taken special interest in developing ancillary and feeder industries. Technical assistance is often provied to these industries in solving their production problems. Assistance is also extended to these units in the procurement of quality raw materials. Among the industries mentioned in this connection are those supplying-packing materials such as card boards, units producing raw materials such as alum, charcoal and chemicals, and various engineering workshops as well as carpentry shops.

3·40 In view of the fact that the explosives factory at Gomia is located in a rural area, IEL have undertaken on its own initiative certain obligations for the development of that area A few years ago when there was a drought, IEL constructed 50 wells in the neighbouring villages. Three villages in the nearby area have been adopted for a programme of integrated development. The company also claims to have made generous donation to official relief funds during natural calamities, such as droughts and floods.

Other Special Features

3·41 It has been pointed out that an important criterion to judge the propriety of approving a project for the production of explosives under the present circumstances is whether the applicant would be in a position to speedily establish the additional capacity so as to minimise the risk of shortage in the supply of explosives that otherwise would face the country in the next few years. Moreover, the proposed supply may be balanced in that it should include both already established and accepted types of explosives, such as NG based ones, as well as the newly coming up Slurry explosives. It is claimed by IEL that they would be in the best position to satisfy these criteria. Their proposal involves the expansion of their production of NG based explosives at Gomia as well as the setting up of new capacity for Slurry explosives at a new site. With the expertise already built up and infrastructure facilities well established, the increase in the production of NG based explosives can be speedily implemented. With the experience already attained in the production of slurry based explosives and also the reputation established in the market, it is claimed that IEL would be in the less position to establish new capacity for slurry based explosives and to market these effectively to the satisfaction of consumers. Approval of their proposal, it is claimed, would also ensure that the fruits of the research efforts undertaken by IEL in the past will become available to the economy. It will also help the further development of the R & D work already well established at Gomia, especially in the field of slurry explosives technology.

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Market Share

3·42 IEL have pointed out that their market share in explosives being large should not be counted against them in considering the present proposal because the maintenance of this large share, specially in the face of capacity already licensed to other manufacturers, is only an indication of the acceptability of their products as against the products of their competitors. Moreover every pioneering venture is bound to have a large share of the market till enough time has elapsed for others to come up. Other producers are now entering the field and IEL's dominance is already on the decline. The fact that the Government is a major shareholder—the shareholding of the President of India and public financial institutions together being about 19·5%—and, with a Government Director being on the board from the very beginning, its almost being a joint sector concern should also not be lost sight of in this connection, the Company has pointed out. The Company has further stated that Government approval to carry on its existing businesss has been obtained under the newly enacted Foreign Exchange Regulation Act, 1973. According to the Company "this establishes that these activities are clearly in the priority sector and that the proposed expansion has the same status as it is in the same line of business'. Moreover, according to the present policy of Government, large houses are encouraged in priority sectors and sectors involving highly sophisticated technology. These criteria, according to the company, are clearly satisfied in the case of the present proposal.

Justification under Section 28

3·43 In addition the Company has also made the following submissions to establish that the proposal also meets the basic requirements of Section 28 of the Monopolies and Restrictive Trade Practices Act.

"(a) With its vast experience, technical and managerial expertise and its past record, IEL is fully competent to ensure that production supyly and distribution of this product is achieved efficienctly and economically and thus will help in meeting the requirements of the mining and non-mining industries which play such a vital part in the general economic position of the country. We will therefore submit that we fully satisfy the test laid down in Section 28(a) of the Act.

"(b) With the marketing organisation established through a number of years, with the availability of the sophisticated technical service, with the aid of the professional managerial skill available, IEL is competent to ensure that the materials reach its customers (majority of whom are Government Agencies) quickly, and efficiently and thus organise the trading activity in such a way so that the efficiency in this regard is further increased. We will therefore submit that the test in Section 28(b) is also fulfilled.

"(c) The proposal will ensure that adequate quantities of high quality explosives are available to the industries which are vital to the country; as a result these industries would be able to make the best use of their men, materials and their industrial capacities resulting in the achievement of their planned targets which is of utmost importance particularly in the face of the prevailing energy crisis.

"(d) The test laid down in 28(c) will therefore be satisfied (d) IEL's proposal envisages development of a new type of product also. IEL with its vast experience and technical expertise together with the research and developmental activities already undertaken by it, is in a position to effect significant technical as well as technological improvements in trade which should result in expanding the existing markets and opening up of new markets. IEL therefore is in a position to satisfy the criteria in Section 28(d).

"(e) Availability of explosives will help in exploring new areas of usage of explosives and will ultimately encourage new enterprises-as indicated earlier, there would be enough demand to accommodate all manufacturers and in fact the expansion will help the inflow of right quality of product and encourage healthy competition.

The present proposal therefore meets the requirements of Section 28(e) of the Act.

"(f) As demonstrated earlier, the proposal envisages opportunities for direct and indirec-employment and development of ancillary services. The sufficient availability of explosives of right quality will ensure achievement of the coal and other mineral targets and construction of important Government projects. The proposal if implemented will substantially help in regulating the control of the country's material resources and thus would subserve the common pool. 28(f) of the criteria is thus satisfied.

"(g) As mentioned in the proposal, the plant is proposed to be installed in one of the backward areas of Madhya Pradesh. This would help in reducing disparities in development under different regions—the requirements under Section 28(g) is thus also met."

Objections to the proposal

3·44 The Commission had issued a public Notification on October 23, 1975, inviting comments, objections and information, if any, regarding the proposal. In response to this, objections were received from the following:—

1. Shri R. Srinivasan, Hyderabad
2. Shri K.K. Samanta, Calcutta
3. M/s, IDL Chemicals Ltd., Hyderabad.
4. M/s. Narendra Explosives Ltd., Dehra Dun.

Shri Srinivasan drew the attention of the Commission to the monopolistic nature of the applicant Company. It was also pointed out by him that the growth of the applicants' parent company, ICI, has been by mergers and acquisitions of competing firms all over the world, indicating the characteristic pattern of operation of such a company of wiping out competitors in the field. Shri Srinivasan also pointed out that, though during the months of July, August and September blasting operations are generally lowest, IEL have successfully dumped ordinary detonators on dealers all over India for in excess of their normal sales during the remaining busy month for blasting operations. His contention was that this could be possible only due to the fact that IEL have been tying up the sales of special gelatine explosives, which are in short supply, with other products. To support this allegation, he also supplied monthwise figures of IEL's sales of ordinary detonators for the years 1973 and 1974. Shri Srinivasan did not appear at the Public Hearing.

3.45 Shri Samanta indicated that the applicants are one of the subsidiaries of ICI, (U.K.) and belong to the chain of world wide ICI organisations which represent one of the world's largest monopolies. He stated that the ICI organisations in India are also already a well knit power. He therefore felt that the proposal will be countrary to the declared principles of the Government to discourage concentration of economic power. Shri Samanta also did not appear at the Public Hearing.

M/s IDL Chemicals Ltd.

3·46 M/s. IDL Chemicals are the only other unit in the country, apart from the applicants, manufacturing industrial explosive as well as accessories. From time to time during the course of the enquiry they supplied considerable information and offered comments on the proposal under consideration. Their objections to the proposal are summarised below:

(i) It has been stated that against the DGTD's estimated demand for industrial explosives of 83,000 tonnes by 1978-79 industrial licences/letters of intent have already been issued for a total capacity of 1,19,000 tonne. They have also stated that the demand estimates prepared by the DGTD in their opinion, on the higher side. In their estimate, demand by 1978-79 would about 79,335 tonnes per annum. IDL, therefore, feels that there is no justification for issuing further licences, particularly for expansion of a monopoly house, which would result in discouraging the existing licence/letters of intent holders from implementing their projects IDL has also indicated that since 1960, a number of parties including large industrial organisations were issued licences/letters of intent by the Government of India· However, none of them could implement their projects mainly because they did not think that they would be able to fight a giant like IEL which has entrenched itself in this industry. IDL has therefore expressed the fear that if IEL's expansion is allowed it may hurt and drive away the existing manufacturers and inhibit any potential entrants from entering this field. IEL also stated that if it should be felt that advance licensing is necessary over and above the capacity already licensed, this object could be achieved quickly and with minimum capital expenditure by themselves. Through the use of continuous process for Slurry explosives, a process which has been developed by their own R & D efforts during the last few years, they would be in a position to expand production quite rapidly.

(ii) IDL have also pointed out that, taking into account developments all over the world, India should also encourage in future the manufacture of Slurry explosives and not NG based explosives. The applicant's established capacity for the manufacture of NG based explosives and fresh capacities approved in the case of two other parties should be quite sufficient to meet the future needs for this type of explosives. IDL have stated that if in spite of this it is felt that the capacity for NG based explosives has to be expended further, it would not be in the public interest to encourage IEL to further expand in this field; it would be in the public interest to encourage newcomers. IDL have also shown their willingness to set up a NG based explosives plant on the basis of technical know-how from their new collaborators, Nitro-Noble of Sweden, who are claimed to be world famous in all types of explosives and who are stated to be in possession of the most advanced technology in the world in NG explosives. It has been stated that this advanced technology will be available to IDL without any payment of know-how fee or royalty.

(iii) IDL have stated that they have established a very large R & D set up for getting over the few short-comings that exist as of today in the Slurry explosives. They have also developed a new continuous process technology for the production of Slurry explosives by which with very little capital investment, large quantities of Slurry exploives can be produced at different location to meet the local requirements, thus avoiding the hazardous process of transporting and storing explosives. If IEL's proposal is sanctioned, it will act as a set back to the indigenous R & D efforts put in by IDL.

(iv) IDL have stated that it will not be in the public interest to further strengthen the existing monopoly power of the applicant Company. It has been stated that IEL is a 'foreign majority holding Company'. In view of this they have been remitting substantial amounts of money abroad. According to the reply to a question answered on 6th December, 1974, in the Lok Sabha, IEL was number two among the 20 companies remitting the largest amounts of foreign exchange abroad, the remittance amounting to Rs. 148·40 lakhs in 1972-73. It has been pointed out that IEL is a dominant industrial undertaking in terms of the MRTP Act, with a total monopoly in respect of NG explosives. They control 75% of the market in all explosives. It has also been pointed out that, though their sanctioned capacity is for the production of 28,000 tonnes per annum, IEL have been producing much beyond their capacity for a number of years. In this respect they have violated the Industries (Development & Regulation) Act. IDL have also stated that, soon after the accident in IEL's plant, a meeting was convened by the Department of Mines on 28th August, 1973 wherein IEL pleaded for installation of stand by equipment as an insurance against similar accidents in future. The representative of the Ministry of Industrial Development at that time indicated that such utiliastion of standby equipment would have to be purely temporary to tide over the difficulties faced at that time of shortage of small diametar explosives, and should not be cited for regularising production capacity at a subsequent date. IDL have expressed their surprise that, in spite of this IEL have been making regular use of this equipment and producing much beyond their capacity of 28,000 tonnes.

(v) IDL have also pointed out that there have been allegations that IEL have been selling their ordinary detonators and safety fuses to dealers during the monsoon period when demand for these products is generally low, possibly by resorting to tie-up sales of speciial gelatine NG explosives with these products, the dealers being able to obtain exorbitant prices for special gelatines because of shortages. IDL have also supplied the figures of the sales pattern of IEL during 1973, 1974 and 1975 and have pointed out that the high sales during the monsoon months of 1973 and 1974 have come down considerably in 1975 when investigations by the authorities on the alleged time-up in sales were started against IEL.

(vi) IDL have also drawn attention to various tactics said to be adopted by IEL in the past These are enumerated below:—

(a) It was pointed out that in Western countries safety fuse was getting obsolete and was being replaced by electric shotfire. In the 1950's. IEL imported and installed a large safety fuse plant which was a second hand plant discarded by their holding company. IEL did everthing possible to perpetuate the use of the outmoded, unsafe and unreliable technology of using safety fuse in the country.

(b) Though IDL obtained a licence to produce explosives in 1953, they took nearly six years to start production, during which period they continued to import explosives on monopoly basis from their parent company against payment in foreign exchange. Though their licence was only for 5,000 tonnes per annum, they installed a plant of a much larger size, 13,600 tonnes per annum, which was regularised subsequently. During the first few years of production, they set a very high price for their explosives and were able to provide depreciation for a plant with much larger capacity and other facilities.

(c) Till about 1965, IEL were importing permitted explosives into the country. Only when IDL started discussions with the Government in 1964 for setting up an explosives plant by importing master-mix Yugoslavia against rupee payment, IEL developed a crash programme for production of permitted explosives in the country and started producing these from 1965 onwards. IEL also started negotiations with IDL, offering to supply them with master mix from Gomia. After considerable negotiations, IEL finally told IDL that their technical collaboration agreement prevented them from offering any after-sales service or technological information concerning the use of their master mix. Bv this time, Yugoslavia had already lost interest in the proposal and IDL could not take advantage of that offer.

(d) IEL were the monopoly importers of detonators from their holding company and took no initiative to start the manufacture of this item in the country, informing the Government that production of detonators was technology intensive and requirements did not justify indigenous manufacture. In 1961, when IDL were issued a licence for the manufacture of 64 million detonators based on the Government's estimated requirements for 1956-66, IEL immediately put up an application for licence for detonators. During 1961-63, prior in implementing their project, IDL were able to obtain suitable supplies of detonator from rupee payment countries and arrange such imports through the STC, thus halting monopoly imports by ICI. IEL however obtained the industrial licence to manufacture detonators by exaggerating to the Government the expected demand for such detonator. When IDL pointed out this fact to the Government, IEL's application was cleared by the Government only on IEL's giving an undertaking that they would not go in for production of detonators until the capacity of IDL was fully utilised. IDL have stated that IEL have not kept their assurance and they have been producing around 54 million detonators during the last few years against their licensed capacity of 40 millions in spite of the fact that

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IDL have enormous idle capacity for the manufacture of detonators. IDL have also pointed out that, even though IEL's application for the manufacture of detonating fuse was rejected, IEL obtained subsequently a COB licence by misrepresenting to the Government that safety fuse and detonating fuse are one and the same item. Here again it is stated that, against a licensed capacity of 2·8 million meters, IEL have been producing 3·7 million meters, although IDL have enormous unutilised capacity.

(e) IEL were given permission to set up a plant for the manufacture of PETN, an essential raw material for the production of detonators, only to meet the requirements for 40 million detonators. In spite of this they set up a PETN plant of very large capacity taking into account their requirements for the manufacture of detonating fuse also, the application for licence for which had been rejected by the Government at that time. When in 1966 the licensing policy was liberalised, IEL set up a detonating fuse plant and managed to obtain a COB licence by misrepresenting set facts to the Goverment.

(f) IDL have also pointed out that IEL resorted to the tactic of undercutting IDL in international markets. Such cases have already been pointed out by IDL to the Ministry of Commerce for necessary action.

3·47 At the Public Hearing, IDL pointed out that their objections were prepared on the basis of information provided by the Monopolies and Restrictive Tarde Practices Commission in its Notification. However, only at the time of the Public Hearing, they came to know about the many changes in the original proposal. On the basis of the information available earlier, they had understood the proposal of IEL as being one of expansion from 28,000 tonnes per annum to 43,000 tonnes per annum. On the basis of the information available during the Public Hearing it became clear to them that the proposal is for expansion from 35,000 tonnes per annum to 50,000 tonnes per annum On the basis of additional information made available during the Public Hearing IDL added the following points to their earlier objections:

(i) The technology which IEL propose to import has not yet been tried out anywhere in the world on a commercial basis and there have been instances of hazard and explosion in the countries where this technology has been practised even on a limited scale. It has also been stated that permission to import technology is against the Government's policy of encouraging indigenous development of technology and to avoid import of repetitive technology from abroad.

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(ii) IDL pointed out that the capital cost of Rs. 16 crores for achieving additional production of 15,000 tonnes is unjustified and may be just to frighten away any newcomers in this field.

(iii) It was also indicated by IDL that if IEL proposes to obtain the requirement of Ammonia for their explosives plant from their own fertiliser unit at Kanpur, they will be enjoying enormous cost advantage as several concessions had been offered to them for the setting up of the fertiliser plant. In such a case, it would be a case of uneven competition between IEL and other manufacturers.

M/s. Narendra Explosives Ltd.

3·48 M/s. Narendra Explosives Ltd. had sent their objection to the proposal of Indian Explosives Limited to the Department of Company Affairs. It was their contention that to safeguard the interest of newcomers like themselves, the whole problem relating to the capacity for the manufacture of industrial explosives should be examined. They also stated that the two existing units and the three new enterprises who were granted letters of intent will be able to satisfy the increasing demand for this product. Any further additions in capacity will be detrimental to the interest of all concerned. The Company or the Government to encourage new enterpreneurs, the new units should be offered special help and co-operation in the initial stages.

3.49 In their comments sent to the commission M/s. Narendra Explosives Ltd. indicated that both the existing units in this field are already in a powerful position and any further expansion to either of them will create complications and problem for the new in marketing the produce as well as in the procurement of raw materials.

3.50 Narendra Explosives did not take part in the Public Hearing relating to this Enquiry

Public Sector Units

3.51 The Commission also wrote letters to the units in the public sector which had been granted letters of intent in this field or were known to be interested namely, Indo Burmah Petroleum Co. Ltd. (IBP), Fertiliser Corporation of India Ltd. (FCI) and Directorate General of Ordnance Factories (DGOF). In response, comments as well as considerable information have been received from these units. Two of the units, IBP and FCI, also sent objections to the proposal under consideration. DGOF, however, restricted itself only to offering its comments on the proposal. The major points mentioned by these units are summarised below:

(i) Increase in IEL's capacity will result in the continuance of their dominant position for a long period, restricting the growth of healthy and effective competition in this industry. To the extent IEL's capacity increased, growth opportunity will be denied to the new units. In any case, it will be difficult for them to establish themselves against IEL which is well entrenched in the market IEL has also special competitive advantage in that their Gomia plant for the manufacture of this product has already been depreciated almost fully. A further strengthening of IEL's position through expansion will worsen the situation.

(ii) IEL have sizeable foreign equity shareholding resulting in a large outflow of foreign exchange on account of dividends. The rate of royalty proposed to be paid by IEL for technical collaboration is unduly high, much higher than that proposed to be paid by IBP, for example.

(iii) Detailed study of the future demand and likely production of these products clearly brings out the fact that the requirements of explosives till the end of the 5th plan will be adequately covered by the production from the existing units, approved expansions, and the new capacity already approved. Two units in the public sector and a number of parties in the private sector have both the intention and the capability for setting up manufacturing facilities for commercial explosives to meet the projected demand. There is, therefore, no reason why IEL, which already has a very large capacity, should be allowed to expand in preference to the setting up of capacity by other organisations.

(iv) If at any stage additional capacity is needed, IBP claimed that it is fully geared to put up such capacity either by further expanding the plants proposed to be installed or by setting up new plants in the appropriate demand regions. With adequate financial, technical and other resources available with them, they can put up as many additional units as may be required within a short period.

(v) Technology proposed to be acquired by IEL has not been proved elsewhere in the world. Moreover, Canadian Industries Ltd., the proposed collaborator, itself has acquired supplementary technology from Ireco Chemicals. IBP's proposed collaborators. The technology available with IBP is now used all over the world. The products developed by the proposed collaborators of IBP are free from the limitations relating to shelf-life, low temperature initiation sensitivity and small diameter sensitivity which are usually alleged in respect of Slurry explosives, and are as good as and in some respects better than NG based explosives.

(vi) IEL's proposal involves much larger capital expenditure than would be needed by IBP for equal output.

(vii) The proposals of the two units in the public sector to put in plants for the manufacture of explosives are in line with the Government's policy of promoting core industries in the public sector. The step will also fulfil an assurance given earlier to the Parliament by the Government that additional capacity for the manufacture of explosives will be installed by public sector units. The major raw materials for the manufacture of explosives are available with the public sector units and public sector coal mining units are the major consumers of explosives. This also further strengthens the case for a policy of encouraging units in the public sector in the manufacture of these products.

(viii) Technical know-how for the production of the major raw materials such as ammonium nitrate and other ingredients are already available with the FCI. The only know-how additionally required by them would be regarding the last step, the formulating and blending process. Even though technologically this is a simple step, there are certain complications specially in view of the safety factors. The technology for this purposeis being acquired.

Support by Gomia Employees

3·52 It may be added that the Commission has received a communication from the Indian Explosives Workers' Union, Gomia. The memorandum states that the wage structure negotiated between the Union and IEL is the highest in the region except for the Damodar Valley Corpoation. The IEL have shown proper care for the safety of employees, and been generous in assisting workers involved in accidents. A large number of workers in the Gomia unit are in the age group 35 to 40 and, unless the unit continuous to expand, they will not have adequate opportunities for promotion. The Union had held out an assurance that the workers will remain vigilant in guarding national interest and will take initiative in reporting the matter if they notice any misuse of the dominant position which IEL have in this product.

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CHAPTER IV

ANALYSIS OF THE PROPOSAL

Demand for Explosives

4·01 The current demand for explosives has been indicated by the DGTD at 44,000 tonnes (for 1975-76). According to the same source, the expected production for this year is said to be between 46,000 to 47,000 tonnes.

4·02 Estimates of likely demand by the end of 1978-79 have been recently prepared and reviewed by the members of the Explosives Committee headed by the Coal Controller, Government of India (See Table 30). The demand for explosives for mineral production has been assessed by this Committee on the basis of the projections of increases in production made in the Plan documents. The assessment of the requirements of other sectors which include the Civil Engineering Sector and Border Road Organisation has been given as indicated by the representatives of the explosives manufacturers. On the targetted production of coal and lignite of 141 million tonnes by 1978-79, the requirements of explosives have been projected at 46,600 tonnes. The blasting ratio, *i.e.*, the ratio between quantity of explosives required and likely coal production, implicit in this estimate is about 330 tonnes of explosives per million tonnes of coal production. The requirement of explosives for mining other than coal has been put at 24,400 tonnes by this Committee, thus adding to a total requirement of explosives of 71,000 tonnes for mining purposes. It appears that the Committee made no attempt to estimate the requirements of other sectors and accepted the figure of 20,000 tonnes as given by the manufacturers' representatives. The total requirement was thus put at 91,000 tonnes for 1978-79. The details are given in the attached Table.

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TABLE 30

Estimates of Demand for Explosives by 1978-79 as prepared by the Explosives Committee

	1974-75		1975-76			1976-77	
	Actual production of mineral/ore	Actual consumption of explosives	Anticipated production of ore, mineral	Actual production during 1975*	Anticipated requirement of explosives	Anticipated production of ore/mineral	Anticipated requirement of explosives
I. MINERAL SECTOR	(M1 . Ton)	(Tonnes)	(M1. T)	(M1.T.)	(Tonnes)	(M1. T.)	(Tonnes)
1. Coal & Lignite	91	17000	109	98	30900	120	35300
	(Production of 1974)						
2. Iron Ore & Manganese	34·2 1·36	3000	40	40·9	4000	47·7	5300
3. Limestone & Dolomite	23·5 1·15	2573	29·7	27·00	3300	34·85	4100
4. Copper ore	1·3	1190	2·1	1·8	1900	3·1	2700
5. Bauxite	1·07	145	1·37	1·2	180	1·7	250
6. Crude Mica	·013	298	·017	·0112	340	·02	500
7. Lead & Zinc ore	0·4	448	0·7	·04	700	1·1	990
8. Gold ore	0·62 (Approx)	375	0·65	2844 Kg. (Metal)	375	0·6	400
9. Other Minerals (Uranium, Asbestos, Chromite, Refractory Minerals) .	..	900	..	..	1000	..	1150
Total of Item No. 2 to 9		8929			11795		15390
II. OTHER SECTOR** (Civil Engg. Project, Defence, Irrigation etc.)		11500			13600		15700

TABLE 30—(*Contd.*)

	1977-78		1978-79		1983-84*	
	Anticipated production of ore/mineral	Anticipated requirement of explosives	Anticipated production of ore/mineral	Anticipated requirement of explosives	Estimated production target	Anticipated requirement of explosives
I. MINERAL SECTOR	(Ml. T)	(Tonnes)	(Ml. Tonnes)	(Tonnes)	(Ml. T)	(Tonnes)
1. Coal & Lignite	130	41400	141	46600	212	69734
	(*Production of 1974*)					
2. Iron Ore & Manganese	53·6	6700	66·5 3·0	8100	87·5 3·8	10645
3. Lime stone & Dolomite	44·20	5200	53·2	6500	73·3	8955
4. Copper Ore	4·56	3800	6·0(ore) 57, 000 tonnes of a metal	5000	1,21,000 (metal in tonnes)	10614
5. Bauxite	2·20	310	2·65	400	6,93,000 (Al metal in tonnes)	644
6. Crude Mica	·033	650	·04	800	N.E.	800
7. Lead & Sinc ore	1·6	1280	2·4	1700	2,80,000 (Metal Lead & Zinc)	4033
8. Gold ore	0·65	400	0·65	400	N.A.	400
9. Other Minerals (Uranium, Asbestos, Chromite, Refractory Minerals)	..	1300	..	1500	..	2415
Total of Item No. 2 to 9		19640		24400	..	38506
II. OTHER SECTOR** (Civil Engg. Project, Defence, Irrigation etc.)		17800		20000		30000
		78840		91000		137880
						(138240)†

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*Estimates supplied by the Indian Bureau of Mines.

**Estimates as indicated by the Manufacturers of Explosives.

†Actual Total.

(*Source* : Indian Bureau of Mines).

4·03 The Guidelines for Industry, 1976-77, gives a demand estimate of 85,000 tonnes of explosives by 1978-79. The capacity required for producing this quantity has been put at 100,000 indicated a demand estimate of 84,000 tonnes by tonnes, assuming capacity utilisation at 85%. The DGTD had earlier indicated a demand estimate of 84,000 tons by 1978-79. Coal India Ltd. (CIL) have indicated that the demand for explosives in 1974-75 was 42,000 tonnes of which coal mining industry was expected to use about 20,000 tonnes. According to CIL, the demand by 1978-79 (including requirements of Border Roads) may be anticipated at 93,000 tonnes, of which the coal mining industry will account for 50%. The Planning Commission has indicated that, while no specific targets have been laid down in the Draft Fifth Plan for commercial explosives, the requirements were assessed by various agencies from time to time. The Planning Commission estimated in May, 1975, that the likely requirements in 1978-79 may be of the order of 80,000 tonnes. In the estimates given by the Department of Coal, however, the estimate of the Planning Commission is put at 78,000 tonnes as against about 91,000 estimated by the Department of Coal (See Table 31). The objecting organisations have also provided estimates of likely demand by 1978-79. IBP has put its estimate at 84,693 tonnes (see Table 32), the IDL Chemicals at 79,335 tonnes (see Table 33) and Narendra Explosives at 83,000 tonnes (Table 34).

4·04 The applicant Company has projected the demand for explosives by 1978-79 at 86,100 tonnes as given below (for details, see Table 36 and Appendix IX).

TABLE 31

Estimates of Demand for Explosives by 1978-79 as supplied by the Department of Coal

ORGANISATION	PLANNING COMMISSION		IBP		DEPARTMENT OF COAL	
Sector	Production target	Explosives requirement	Production target	Explosives requirement	Production target	Explosives requirement
	Million tonnes	Tonnes	Million tonnes	Tonnes	Million tonnes	Tonnes
MINING						
Coal & Lignite	140·2	38,000	141·0	43,113	141·0	46,985
Iron Ore & Manganese	60·2	7,000	61·0	7,450	70·0	8,100
Limestone/Dolomite	48·0	5,800	49·5	6,100	53·2	6,500
Copper	4.5	3,700	4·1	4,060	6·0	5,000
Bauxite	1·8	300	1·8	270	2·70	400
Lead & Zinc	2·2	1,500	2·4	1,700	2·4	1,700
Other Minerals	..	2,000	..	2,000	..	2,000
TOTAL MINING	..	58,000	..	64,693	..	70,965
NON-MINING :	..	20,000	..	20,000	..	20,000
GRAND TOTAL:	..	78,000	..	84,693	..	90,965

Source:—Department of Coal, Ministry of Energy.

TABLE 32

Estimates of Demand for Explosives by 1978-79 as prepared by IBP

Zones	Mining	Non-Mining	Total	Permissibles	Non-Permissibles	Total
Eastern	30,186	8,000	38,186	14,190	23,996	38,186
Central	20,315	1,000	21,315	6,352	14,963	21,315
Western	1,880	1,000	2,880	..	2,880	2,880
Northern	4,525	6,500	11,025	..	11,025	11,025
Southern	7,787	3,500	11,287	3,600	7,687	11,287
TOTAL :	64,693	20,000	84,693	24,142	60,551	84,693

Source: IBP.

TABLE 33

Estimates of Demand for explosives prepared by IDL Chemicals Ltd.

(Explosives in tonnes)

Production	1975-76					1976-77				
	TARGET	PSD	LD	NPSD	Total	TARGET	PSD	LD	NPSD	Total
Coal	99 MT	19800	4600	700	25100	108MT	21425	5400	700	27525
Lignite	4·2 MT	..	300	..	300	4·6 MT	..	400	..	400
Iron	41·30 MT		3400	1750	5150	46 MT		4125	1850	5975
Manganese	1·70 MT					2·7 MT				
Limestone	29·00 MT		1750	1700	3450	35 MT		2100	2050	4150
Dolomite										
Copper	18000		60	1340	1400	25000		100	1900	2000
Metal										
Gold				350	350				350	350
Zinc Ore	680429			700	700				800	800
Mica	13000			340	340				360	360
Uranium				280	280				310	310
Aluminium (Bauxite)	1·27 MT			175	175				225	225
Sundry Mine				400	400				400	400
TOTAL MINES		19800	10110	7800	37710		21425	12125	8945	42495
DGBR				1500	1500		..	..	1600	1600
Major & Minor Irrigation Hydro Electric Road, Railways & other projects			190	9000	9190		..	300	10500	10800
Total Non-Mining			190	10500	10690			300	12100	12400
GRAND TOTAL		19800	10300	18300	48400		21425	12425	21045	54895

NOTES.— PSD—Permitted small diameter, LD—Large diameter; NPSD—Non-Permitted small diamter.

Source: IDL Chemicals Ltd.

TABLE 33—*Contd.*

(Explosives in tonnes)

Production	1977-78 Target	1977-78 PSD	1977-78 LD	1977-78 NPSD	1977-78 Total	1978-79 Target	1978-79 PSD	1978-79 LD	1978-79 NPSD	1978-79 Total
Coal	120 MT	25775	6875	700	33350	135 MT	31725	8250	700	40675
Lignite	5·1 MT	..	500		550	6 MT		700		700
Iron	51 MT }		4400	1975	6375	58 } MT		5250	2100	7350
Manganese	2·4 }					3 }				
Limestone	43 MT		2650	2530	5180	53·2 MT		3275	3075	6350
Dolomite										
Copper	34000		150	2550	2700	45000		200	3300	3500
Metal										
Gold				375	375				400	400
Zinc Ore				920	920	100000 (metal)			1100	1100
Mica				425	425				500	500
Uranium				350	350				400	400
Aluminium (Bauxite)				285	285	400000 (metal)			360	360
Sundry Mine				400	400				400	400
TOTAL MINES . .		25775	14625	10510	50910		31725	17675	12335	61735
DGBR				1800	1800				2000	2000
Major & Minor Irrigation Hydro Electric Road, Railways & other projects.			450	12500	12950			600	15000	15600
Total Non-mining . .			450	14300	14750			600	17000	17600
GRAND TOTAL . .		25775	15075	24810	65660		31725	18275	29335	79335

NOTES.— PSD—Permitted small diameter; LD—Large diameter; NPSD—Non-permitted small diameter.

Source: IDL Chemicals Ltd.

TABLE 34

Estimates of Demand for Explosives by 1978-79 submitted by Narendra Explosives Ltd.

Mineral	1972 (actual)			1978-79 (estimated)		
	Quantity raised million tonnes)	Consumption of explosives (tonnes)	Tonnes explosives used per m. tonnes mineral raised	Quantity targeted to be raised (million)	Tonnes explosives required per M.	Requirement of explosives (tonnes)
Coal/Lignite	79	14,000	77·2	147	274	40,300
Iron/Ore/Manganese	32 1·6	3,650	108·6	66.5 3·0	108·6	7,550
Limestone/Dolomite	27	3,180	118	53.2	122	6,500
Bauxite	1·66	250	151	2·65	151	400
Copper Ore	0·87 (eqv. to 10,400 tonnes copper)	625	718	6 (eqv. to 57,000 tonnes copper)	833	5,000
Lead/Zinc	0·3	216	720	2·4	720	1,700
Gold	0·6	355	392	0.64	592	380
Mica	0.014	298	21,300	0·015	21,300	320
Other minerals	..	719	..	..	..	1,000
TOTAL-MINING		23,293				63,150
Non-mining *	..	13,400†	..	..	..	20,000
GRAND TOTAL :	..	36,693	..	..	..	83,150

*=As estimated by IEL.

†=1972-73.

Source: Narendra Explosives Ltd.

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TABLE 35

Sector-wise Estimates of Demand as prepared by IEL

Industries	Requirements Tonnes
Mining Sector	
Coal/Lignite	46200
Iron/Manganese	8300
Lime/Dolomite	5500
Copper	4000
Other minerals	3000
Total mining	67000
Non-mining Sector :	
DGBR	2000
Roads and Railways	3000
G. Hydel Projects	5000
Minor Irrigation & Well Sinking	8500
Harbour Projects	600
Total non-mining	19100
GRAND TOTAL :	86100

Source: The applicant Company.

4·05 The demand for coal/lignite mining has been estimated by the Company on the basis of a target of 135 million tonnes of coal production in 1978-79. The blasting ratio used for estimating the requirements of coal mining has been assumed to increase from 225 tonnes in 1974 to 327 by 1978-79. It has been stated that this ratio increased from 154·2 tonnes in 1968 to 225 tonnes in 1974. The Company has indicated that the trend towards increase in the blasting ratio during this period is likely to accelerate further during the Fifth Five Year Plan period as pick mining is likely to be completely replaced by blasting, significant increases are likely in the use of solid blasting techniques, and larger increases are expected in production from open cast mining as compared to underground mining. (Open cast mining requires more explosive per tonne of coal produced than undergound mining. (For iron and manganese ore mining, the Company has prepared its estimate on the assumption of a likely production of 62 million tonnes and a blasting ratio of 134. (The ratio observed during 1974 was 119). For copper, requirements of 4000 tonnes of explosives by 1978-79 have been estimated on the assumption of a production target of 5 million tonnes of copper ore, and the requirement of explosives at 800 tonnes per million tonnes of copper production. No specific bases have been indicated by the Company for its estimates for other uses.

TABLE 36

Estimates of Demand for Explosives by 1978-79 *and* 1983-84 *as prepared by IEL*

(Tonnes)

	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1983/84
Coal and Lignite	14900	16600	20600	26400	31200	38500	46200	74000
Iron and manganese	4200	4400	4600	5100	5600	6900	8300	12000
Copper	800	1100	1500	1600	2400	3200	4000	9000
Limestone/Dolomite and other mining	4000	5900	6700	7400	7400	8000	8500	14000
TOTAL MINING	23900	28000	33400	40500	46600	56600	67000	109000
Non-mining projects	10800	12000	13000	14500	15400	17400	19100	31000
GRAND TOTAL	34700	40000	46400	55000	62000	74000	86100	140000

Source:—The applicant Company.

4·06 From the data given above, it will be seen that there is not much difference of opinion regarding the estimates of demand, specially for the next few years. For the mining sector, the estimeat of the Department of Coal is the highest at about 71,000 tonnes. The Planning Commission's estimate for the mining sector is 58,000 tonnes. Indo Burma Petroleum, a public sector corporation, claims to have made a careful estimate of demand and has arrived at a figure of 64,700 tonnes. IEL has estimated the demand at 67,000 tonnes. One can therefore take it that the demand from the mining sector by 1978-79 is not likely to exceed 65,000 tonnes per annum. Taking into account the fact that due to accumulation of coal stocks the mines are facing difficulties, it is not unlikely that the target of 140 million tonnes of coal for 1978-79 may have to be revised downwards.* That of course would depend to some extent on the general tempo of economic and industrial growth. In any case, it does not appear that the demand for explosives from the mining sector will exceed 65,000 tonnes by 1978-79.

4·07 As regards the non-mining sector, the basis for the estimate appears to be much less firm than that for the mining sector. In a number of estimates, a figure of 20,000 tonnes per annum has been assumed for the non-mining sector without any detailed breakup. IEL has given a detailed breakup. In their estimate, the requirement of the Directorate General of Border Roads by 1978-79 is put at 2,000 tonnes; while according to the DGBR itself, the requirement of explosives would be as follows :—

TABLE 37

Planned requirements of Explosives by DGBR

	Tonnes
1975-76	1550
1976-77	1650
1977-78	1550
1978-79	1050
1979-80	950

Source:– DGBR

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*It is now understood that the coal target has been reduced to 125 million tonnes. The representative of the Planning Commission said at the Commission's Public Hearing on the Maharaja Shree Umaid Mills' case that the explosives demand by 1978-79 may not exceed 75,000 tonnes as per present estimates.

Thus the requirement in 1978-79 is shown only as 1050 tonnes as against 2,000 tonnes estimated by IEL. We do not have details of how the demand for the other non-mining sectors has been calculated by sources other than IEL (for details about IEL estimates see Appendix X). Taking into account the fact that other estimates are placed at about 20,000 tonnes and IEL's estimate is about 19,000 tonnes, and also the fact that for the DGBR, IEL's estimate is larger by about 1,000 tonnes, it may not be inappropriate to conclude that the demand from the non-mining sector by 1978-79 is not likely to exceed 15,000 tonnes. Therefore the total demand by 1978-79 is likely to be less than 80,000 tonnes. Assuming 80% utilisation of capacity as against 85% estimated by the DGTD, it may be safe to say that a licensed and installed capacity of 100,000 tonnes would be necessary in 1978-79 in order to satisfy the maximum expected demand by that year.

4·08 As this enquiry is being held in 1976 and the Government decisions on a number of applications are likely to be made only by about October, 1976, the expected demand for the years following 1978-79 is also of much importance in this connection. IEL has estimated the demand for explosives in 1983-84 as follows :—

Mining	109,000 tonnes
Non-mining	31,000 tonnes
Total	140,000 tonnes

In arriving at this estimate, IEL have stated that they have taken into account production targets for various minerals set by various Government agencies and they have made certain assumptions about the blasting ratios. The estimate for non-mining sector is based on projections of past trends, plans given in various documents for Government projects and discussions with various authorities. (See Table 36 and Appendix IX). According to the Department of Coal, tentative estimates for 1983-84 prepared by different agencies are as follows (see Table 38).

Planning Commission	128,921 tonnes
IBP	138,625 tonnes
Department of Coal	147,865 tonnes

The details about how these projections have been worked out are not available. It may however be assumed that the demand in 1983-84 is not likely to exceed 140,000 tonnes per year of blasting explosives.* On the basis of 80% utilisation of capacity, the licensed and installed capacity by 1983-84 would therefore have to be 1,75,000 tonnes per annum of blasting explosives. The 'Guidelines for Industries, 1976-77' issued by the Department of Industrial Development however state that it would be "desirable to aim for an installed capacity of 200,000 tonnes by 1985". It was explained by a representative of Government at the public hearing that certain assumptions are made regarding the percentage of licences that do not fructify. But it appears to us that an installed capacity of 200,000 tonnes would be excessive for 1983-84. What would be desirable is a licensed capacity of 175,000 tonnes which can be reasonably expected to be installed and operated by that year.

TABLE 38

Estimates of Demand for explosives 1978-79 *to* 1983-84

(Tonnes)

Organisation	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84
1. Planning Commission .	78,000	84,043	96,563	1,06,662	1,17,414	128,921
2. IBP	84,700	94,330	104,460	1,15,162	1,26,518	138,625
3. Department of Coal .	91,000	101,200	111,923	1,23,217	1,35,164	147,865

NOTE — 1. Planning Commission and Department of Coal have forecast the demand for explosives for the year 1978-79 only.

2. The future projections have been made on the basis of

(a) Consumption norm of explosives implicit in each estimates.

(b) Tentative for the year 1983-84.

Source:- Department of Coal, Ministry of Energy.

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*In this connection, it may be noted that accumulation of large stocks at Pitheads is reported to have led to some rethinking about the coal mining development projects. Some of these may be taken up later than earlier projected. This will lead to a postponement of the demand for explosives to a later date (See Financial Express, June 11, 1976, p. 1).

4·09 As regards the total requirements of explosives for the mining sector, a part of it is required for use in underground gassy mines. The explosives required for use in such mines have to be of special quality, the quality etc. being subject to sepecial testing by the Directorate General of Mines Safety. These are called 'permitted' explosives. There are three categories in permitted explosives, P1, P3 and P5 depending upon the explosives suitable for different types of mines. As NG explosives have been in use for many decades, the standards required in their case for permitted explosives have become traditional. In the case of slurry explosives, these being new, special tests etc. have to be carried out. Their introduction therefore takes time. In the case of IDL Chemicals Ltd., while they have been in production from 1970, their products have as yet been approved only in a limited manner as permitted explosives. Thus IDL's P1 explosives were initially approved for a few mines in 1970; they were approved for other mines over a period of time until, in 1973, they were approved for most mines. Their production of P3 explosives was similarly approved for a few mines in 1971, for all D2 mines by 1974, while the approval for D3 mines was given only in March, 1976, and that too provisionally for one year. As regrards P5 type of explosives, these were approved for a few mines in 1972, for a few more mines in 1975 and for some other mines only conditionally in April, 1976. The approval for some other types of mines is still under examination.

4.10 As the supply of permitted explosives is of great importance in ensuring the production of minerals, and specially coal, special attention needs to be given to the requirement of permitted explosives. The data made available to the Commission by the Department of Coal regarding the estimated requirments of permitted explosives will be found in Table 39. This will show that, out of the total demand estimated by the Department of Coal at 46,600 tonnes of explosives by 1978-79, as much as 25,650 tonnes would be that for permitted explosives. It will be important to keep this aspect in view when examining the present proposal. It may also be mentioned that, as against this estimate of 25,650 tonnes, the estimated demand for permitted explosives by 1978-79 is said to be 32,500 tonnes and 24,142 tonnes by IEL and IBP respectively (see Tables 40,s 41). As the Department of Coal is more likely to have reliable data about the manner in which coal mining will develop in the next few years, and their estimate is based on the known requirements of important mineral producers, we may place more reliance on their estimate of demand for permitted explosives.

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TABLE 39

Estimates of demand for different types of Explosives in 1978-79 *as prepared by the Department of Coal.*

(Tonnes)

Organisation	Permitted				Non-Permitted							Grand Total
	P1	P3	P5	Total	Small Die		Large Die					
					Slurry	NG	Slurry	ANFO	LOX	NG	Total	
Goal India Ltd. (excluding BCCL)	3500	3300	10550	17350	1000	2300	6000	4000	2200	3400	18900	36250
Bharat Coking Coal Ltd.	900	1400	900	3200	NA	NA	NA	NA	NA	NA	900	4100
Singareni Collieries Co. Ltd.	600	2850	50	3500	..	..	..	..	..	..	..	3500
TISCO	NA	NA	NA	1100	..	..	..	..	..	..	..	1100
IISCO	NA	NA	NA	500	NA	NA	NA	NA	NA	NA	50	450
Neyveli Lignite Corporation	..	..	..	..	NA	NA	NA	NA	NA	NA	1100	1100
Total				25650							20950	46600

Source : The Department of Coal.

The Prospects for Supply—Present Producers

4·11 As already indicated earlier, the present production of explosives is controlled by two manufacturers, namely, IEL, the applicant Company, and IDL Chemicals. The licensed and installed capacity of these two has already been indicated earlier, but it is repeated below for ready reference :—

TABLE 42

Existing Licensed and Installed Capacity for the manufacture of Industrial Explosives

(In tonnes)

Name	Licensed Capacity	Installed capacity
1. M/s. Indian Explosives Ltd.	36,000	36,000
2. M/s. IDL Chemicals	22,500	15,000*

Source:—DGTD.

*This excludes the capacity of the Hyderabad Unit 7,500 tonnes—which is said to have commenced trial production recently.

TABLE 40

Estimates of demand for different types of Explosives by 1978-79 prepared by IEL

(Tonnes)

	Permitted	Non-Permitted		Total
		Small Diameter	Large Diameter	
Coal/Lignite	32,500	2,000	11,700	46,200
Iron Ore	..	2,200	6,100	8,300
Copper	..	4,000	..	4,000
Others	..	4,750	3,750	8,500
Total Mining	32,500	12,950	21,550	67,000
Non-Mining	..	19,100	..	19,100
Grand Total	32,500	32,050	21,550	86,100

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Source: IEL

TABLE 41

Estimates of demand for different types of explosives by 1978-79 prepared by IBP

(Tonnes)

	Permitted	Non-Permitted		Total
		Small Diameter	Large Diameter	
Mining:				
Coal & Lignite	24,142	3,071	15,900	43,113
Iron Ore & Manganese	..	1,490	5,960	7,450
Limestone/Dolomite	..	2,440	3,660	6,100
Copper	..	3,660	400	4,060
Lead & Zinc	..	1,700	..	1,700
Bauxite	..	60	210	270
Other Minerals	..	2,000	..	2,000
Total Mining	24,142	14,421	26,130	64,693
Non-Mining		20,000	..	20,000
Grand Total	24,142	34,421	26,130	84,693

Source: Department of Coal, Ministry of Energy.

4·12 Our analysis about the actual potentialities of the existing plant of IEL suggests that they have basically a capacity to produce 42/43,000 tonnes per annum of explosives without any significant addition to plant or machinery. It has already been noted that IEL is already producing explosives of the order of about 35,000 tonnes per annum, while IDL attained a production level of 9741 tonnes in 1975. IDL Chemicals have stated that they could have produced more if there was demand; but with inadequate demand and the increasing output of the already well established producer, *viz.*, IEL, they have not been able to utilise their installed capacity fully.

4·13 In addition to these two established producers of commercial blasting explosives, there are two other sources of materials which satisfy the requirements of explosives.

These are :

(1) Indian Oxygen Ltd. and

(2) Fertiliser Corporation of India Ltd.

Indian Oxygen Ltd. supplies liquid oxygen explosives (LOX). The cartridge for it is manufactured in IOL's factory at Ranchi, while liquid oxygen is obtained from the various air separation plants near mining areas. No industrial licence has been obtained for the manufacture of cartridges as, because of the small employment in the factory, the unit is exempt under the (I&R) Act. IOL have stated that their current cartridge manufacturing capcity is equivalent to 3,000 tonnes of explosives per annum. Their actual outputin terms of tonnes of explosives has been as given below :—

TABLE 43

Production of Liquid Oxygen Gas used as an Explosive

Year ended	Quantity of LOX (tonnes of explosives)
31-3-1972	1,821
31-3-1973	1,556
31-3-1974	1,401
31-3-1975	1,455
31-3-1976	1,558

Source:—Indian Oxygen Ltd.

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IOL have stated that a number of mining organisations are using LOX for open cast mines. These include Central Coal Fields, a subsidiary of Coal India, National Mineral Development Corporation, Tata Iron and Steel, Indian iron and Steel, Hindustan Steel, Neyveli Lignite and Orissa Mining Corporation. It has been explained that there is currently some shortage of liquid oxygen in the mining area which has prevented further use of LOX as explosives.

4·14 It has been mentioned earlier that one of the developments in the period after the Second World War in the field of explosives was the use of ammonium nitrate fuel oil (ANFO). This is a comparatively simple and cheap explosive, but it has certain limitations on its use. The Fertiliser Corporation of India, which produces ammonium nitrate of the explosives grade, have been marketing it for use as explosives in combination with fuel oil. The capacity for the production of ammonium nitrate is 9,000 tonnes and FCI has stated that it is already marketing this product to the extent of 6,000 tonnes. They are expecting that demand for the entire quantity of 9,000 tonnes will develop in the near future. The representatives of FCI have further explained that ANFO being a cheap substitute for traditional explosives—its cost is about 60% that of traditional explosives—its use needs to be popularised. In the USA, according to them, quite a substantial proportion of explosives requirements are met by the use of ANFO. Efforts are going on all over the world to streamline the use of ANFO so as to reduce the limitations on its use. The FCI intends to undertake further efforts to popularise the use of ANFO as this will save national resources with the substitution of a costlier by a cheaper material. It is expected that the use of ANFO will increase to about 15/17,000 tonnes by 1978-79.

65—10 M of LJ & CA/ND/79

New Producers

4·15 The status of the schemes which have already been approved by the Government for the production of industrial explosives (as indicated by the DGTD) this given below :

TABLE 44

Details relating to the approved capacity for the manufacture of Explosives

Name	Location	Approved capacity	Status of Implementation
1	2	3	4
1. M/s. IDL Chemicals, Hyderabad.	*Hyderabad, Andhra Pradesh	7,500 tonnes	Slurry Explosives. Land acquired, building constructed. Order for capital goods placed. As no imported capital goods are required and technology is available with the applicant production is expected by April, 1976.
2. M/s. IDL Chemicals, Rourkela.	Rourkela Orissa	7500	Slurry Explosives. Project is to be implemented after the Hyderabad scheme. Production expected during early 1978.
3. M/s. Narendra.	Lalitpur, U.P.	10,000 tonnes	Conventional Nitro Glycerine based explosives. CG cleared, foreign collaboration cleared. The project however is not making satisfactory progress and is not expected to materialise before 1978.
4. Coal Mining Authority/Dir. Gen. of Ordnance Factories, Public Sector	Bhandara, M.P.	5,000 tonnes	Conventional Nitro Glycerine based explosives. The public investment board has cleared this project in July, 1975, for an investment of Rs. 6.5 crores. The project is planned to be completed in 36 months. It is therefore likely to go into production in middle of 1978.
5. Madhya Pradesh Audyogik Vikas Nigam, Bhopal.	Korba, M.P.	18,000 tonnes	Slurry Explosives. The applicant has written to the Ministry that they are going to surrender the letter of intent.
6. Indian Explosives, Ltd., Gomia (S.E.)	Gomia, Bihar.	7,000 tonnes	Conventional NG based explosives. The applicant is currently producing about 34,000 tonnes of explosives against their licensed capacity of 28,000 tonnes. Their proposal for regularisation of additional production has been recommended by DGTD to the Licensing Committee. Decision is awaited.
7. Indian Explosives Ltd.,† Gomia (New Unit).	Somewhere in Western India or Central India.	15,000 tonnes	Type of explosives not yet decided. The case processed and recommended to L.C./MRTP. Final decision awaited.

*This is already indicated in the licensed capacity given at the beginning of this section.

$This is now transferred to Indo-Burma Petroleum Company Ltd.

†Already—approved now.

Source—DGTD.

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IDL Chemicals

4·16 Before going on to new proposals, we may briefly review the prospects of these proposals (other than those of IEL) materialising. As regards the two schemes of IDL Chemicals, it appears that they will not present much of a problem. It is understood that the explosives plant at Hyderabad is already erected and will be inaugurated shortly and some production may be established during the current year itself. It may not therefore be inappropriate to assume that the plant will be capable of coming into full production by 1977-78. As regards their proposal to add a capacity of 7,500 tonnes to their present explosives plant at Rourkela, they have indicated that they are now finalising continuous process of operation in that plant. The development is in advanced stage and it is expected by them that production could be stepped up within a short time. In any case therefore it appears likely that this scheme would also materialise by 1978 so that additional capacities to the extent of 15,000 tonnes per annum will be coming into operation by 1978.

CIL—DGOF

4·17 A plant for the production of NG based explosives at Bhandara is being set up jointly by the Coal India Ltd. and the Directorate General of Ordnance factories (DGOF). The Commission has been assured that the project is steadily progressing. It is likely to go into production by mid-1978. It has been further pointed out that, while the stable capacity of the plant would be 5,000 tonnes per annum, the plant would be capable of producing 7,500 tonnes though from the point of view of ensuring standby capacity, the concerned authorities would rather avoid doing so. Such additional production can be established by 1980-81. A further point made by the DGOF is that additional capacity for nitroglycerine was being created and such surplus would be available by 1981-82 in quantities adequate for the production of 6,000 tonnes of explosives per annum. From the existing facilities with the DGOF, it is also possible to make available nitroglycerine for the production of 6,000 tonnes of explosives per annum. At the moment, with transport difficulties, no existing plant can use this material. The question about how these supplies of nitroglycerine can be used for additional production of explosives has not yet been decided by the Government. There would be adequate raw materials available for the production of about 12,000 tonnes per annum to explosives based on nitroglycerine.

Narendra Explosives

4·18 As regards Narendra Explosives, it may be mentioned that they were granted a letter of intent in May, 1972. However, the Government informed them in June, 1972, that they should not take any further action on the letter of intent as the Government was reconsidering the whole position with a view to confining the future development of explosives to the public sector. It was only in June, 1973, that they were again informed that they could proceed with their project. Industrial licence was granted to them in February, 1975. Narendra Explosives have informed the Commission that they have already been given land measuring 1,000 acres for the project by the State Government in the industrially backward area of Lalitpur district in Uttar Pradesh. In order to meet the immediate requirements of the country as well as to gain experience, they have started a pilot project at Dehradun and this has been approved by the Government. Orders have been placed for this pilot plant and this is expected to go into production in 1976. In the meanwhile, some manufacture of cap insensitive explosives has been taken up and samples of these have been got approved from the Directorate of Explosives. As regards the main project, they have stated that they have secured foreign collaboration with a reputed European producer of explosives (J. Meissner) and the terms of collaboration have already been approved by the Government. The Government has also already approved the capital goods import for the proposed plant. The only aspect that appears to be still under examination is regarding the financial support to be extended by public financial institutions. Narendra Explosives expected that this aspect would be cleared shortly. Their expectation is that once finance becomes available from the financial institutions, with all the other steps already taken, it may not take more than 14 months for them to complete the project and commence operation. Though this is a medium—almost small—unit, the entrepreneurs have experience of this activity. Narendra and Company, an associate unit, is already manufacturing gun powder and safety fuse since 1964. Doon Udyog Ltd., another associate unit, has been a distributor of explosives and has storage magazine arrangements in Himachal Pradesh, Uttar Pradesh and Rajasthan. The management appears confident that, if insuperable difficulties and hurdles do not come in their way, they will be able to establish the project in a short time. It appear to us that most of the formalities regarding the development of the project having been completed and necessary Government approvals obtained, the project has a good prospect of materialising. We do however appreciate that it may take some time before the financial institutions take a decision on providing financial support and therefore the proposal may not fully materialise befere 1978.

IBP

4.19 Regarding the letter of intent given to Madhya Pradesh Audyogik Vikas Nigam, this has now been taken up by Indo-Burma Petroleum Company Ltd. (IBP), a public sector undertaking. A letter of intent for an aggregate capacity of 20,000 tonnes of explosives per year has been issued by the Government of India to IBP in November, 1975. The proposal is to have four plants, all located in Madhya Pradesh—two at Korba, one at Katni and one at Itarsi. Sites at all the three locations have been surveyed and identified and clearance obtained for land acquisition. The Government of India has already approved the investment proposal in respect of two of the four plants, while the investment for the remaining two plants has been approved in principle. A foreign collaboration agreement with a reputed American Company—IRECO—has been concluded and this also has been approved by the Government. On the basis of this collaboration, it is expected that slurry explosives, both of permitted and non-permitted varieties, would be produced in a composition as required by the market. IBP's expectation is to put up one plant a year and thus, with the first plant being initiated in 1976, all the four plants will be completed by 1980. Their expectation is that commercial production will commence within one year from the start of work on a plant and full capacity will be reached within a few months thereafter. On this basis, IBP expects to be able to install a capacity of 5,000 tonnes per annum by the end of 1977 and add an equal capacity every year till the total capacity of 20,000 tonnes is reached. In support of this schedule, IBP has pointed out that their collaborators have put up a plant in Japan which started full production within one year from the time collaboration arrangements were concluded. IBP's claim is that full production can be established in a few months after initiating commercial production.

Fertiliser Corporation

4·20 It appears that following a decision taken by Government that further capacity for the production of explosives should be created in the public sector to the extent possible, FCI was asked to explore the possibility of setting up such capacity. As a result of these explorations, FCI has prepared a proposal for setting up an effective production capacity of 15,000 tonnes of lurry explosives based on ammonium nitrate, and a capacity of 20,000 tonnes is proposed to be installed to attain this production. A special point in favour of FCI's proposal is that they have considerable surplus capacity for the production of ammonium nitrate, a basic material for the production of Slurry explosives and that, as a result of new developments in the fertiliser industry, this capacity will become surplus in the near future. Thus, setting up the production of lurry explosives capacity so as to use this surplus ammonium nitrate would help ensure the economical use of a plant which would otherwise be redundant. FCI, with its long background in the production of heavy chemicals, has claimed that it has got the necessary technical capability to take up this task and complete it within a short time. It is the claim of FCI that, once all the Government's clearances are available, it will take them two years to set up a plant and bring it into operation.

4·21 One difficulty in the way of FCI appears to be the failure to reach agreement with a suitable foreign collaborator. Earlier, the idea appears to have been that IRECO would provide technical collaboration both to IBP and FCI if the latter wanted it. But FCI was attempting to secure technical collaboration with Du Pont. This proposal did not materialise apparently because of differences regarding the terms on which other intending explosive producers—especially in the private sector could obtain the technological information given by Du Pont to FCI. The result is that Du Pont has decided to collaborate with a private sector unit—Chowgule's—if the latter obtain permission to set up an explosives manufucturing unit. FCI is left without a technical collaboration satisfactory to them. Their project appears to have therefore received a certain setback. Their representative informed the Commission that for the time being FCI would concentrate on developing the market for ANFO as an explosive.

Balance of Demand and Supply

4·22 Thus, the existing licensed and installed capacity is 69,500 tonnes per annum (36,000 IEL, 22,500 IDL, 9,000 FCI and 2,000 IOL). This leaves a gap of about 30,500 tonnes per annum for additional capacity to be licensed and brought into existence thus creating a capacity of 100,000 tonnes so as to satisfy the expected demand of not more than 80,000 tonnes by 1978-79 on the basis of 80% utilisation of capacity. We have already seen that the capacity already approved by Government, the proposals regarding which have made significant headway, amounts to 45,500 tonnes per annum. This includes—

IDL	7,500 tonnes
IBP	18,000 tonnes
CIL/DGOF	5,000 tonnes
Narendra	10,000 tonnes
	40,500 tonnes

From the information given above, it would not be wrong to conclude that the capacity proposed to be installed by IDL Chemicals and DGOF/CIL will fully come into existence by 1978-79. It would also be correct to assume that IBP would be able to put up a capacity of atleast 10,000 tonnes if not of 15/18,000 tonnes by 1978-79. Regarding the proposal of Narendra Explosives, while it has made considerable headway, its progress depends upon finance being made available by public financial institutions. It appears to us that one aspect that the institutions may well look at critically would be whether there would be adequate demand for the proposal to be financially viable. It will have therefore to be assumed that the approval by financial institutions of the proposal of Narendra Explosives would to some extent depend upon whether many other proposals, and specially the proposal by IEL which is presently dominant in the industry, is approved or not. We shall revert to this aspect later. In any case, therefore, a capacity of at least 22,500 is most likely to be brought into existence by 1978-79 on the basis of the proposals already approved. If the market prospects for the proposal of Narendra Explosives remain good, a further 10,000 tonnes capacity will be brought into existence. In addition to this, the FCI expects to market an additional 10,000 tonnes of Ammonium Nitrate for use in the form of ANFO. This analysis suggests that there is not much necessity to bring about any major addition to licensed capacity for the purpose of satisfying the expected demand by 1978-79.

4·23 It could , however, be said that 1978-79 is not far away and, with the importance that coal is being given in the future development of the country and therefore the importance of the production of explosives, it is necessary that steps should be taken from now for meeting the demand expected to arise in the Sixth Five Year Plan period. We have already seen that the demand expected by the end of the Sixth Five Year Plan would amount to 140,000 tonnes per annum and therefore a capacity for 175,000 tonnes per annum will have to be created by that time. When we consider the Sixth Five Year Plan period, we may assume that all the capacity approved upto now except perhaps that of Narendra Explosives would definitely come into operation. Narendra Explosives may also come into operation if there is an adequate market for exploisves. Thus a total capacity of 110,000 tonnes per annum (plus perhaps 10,000 tonnes of ANFO) would be in existence in the early part of the Sixth Plan Period. There would thus be scope in the latter half of that period for an additional capacity of about 55/65,000 tonnes per annum.

4·24 The question for consideration is: Is it necessary to approve capcity in 1976 for the purpose of meeting the requirements of capcity creation in the latter half of the Sixth Plan period. *i.e.*, in the period between 1981 and 1984? Is the gestation period between the grant of licence or MRTP approval and the coming into existence of capacity as long as four or five years?

4.25 In addition to IEL, there are three other proposals for the manufacture of explosives as indicated below which are under are under consideration. We have to take all these into account when considering the proposal of IEL.

TABLE 45

New Proposals for the manufacture of Explosives

Name	Capacity applied for	Period of completion
(i) Chowgule and Company Pvt. Ltd.	Slurry 20,000 tpa	18 months from receiving all permissions Full capacity to be reached by 5th year.
(ii) WIMCO Ltd. · · ·	Slurry 24,000 tpa	24th months from receiving all permissions. Full capacity to be reached by 6th year.
(iii) Maharaja Shri Umaid Mills Ltd.	Slurry 24,000 tpa	24–30 months from receiving permissions. Full capacity to be reached by 6th year.

Source:— DGTD.

When considering all these proposals, we have to see, firstly, what impact the approval of any one or more of these proposals is likely to have on the successful implementation of the others that are already approved or that are under consideration; and secondly, whether the approval of any one or more of these proposals is necessary for the purpose of meeting the estimated capacity requirements in the blasting explosives industry by 1978-79 or by 1983-84. We have also to examine the question, as mentioned above, of the time when approvals/licences need to be given to meet the requirement of creating capacity in the latter half of the 6th Five Year Plan.

Possible Advantages from Accepting the Proposal

IEL's Efficiency

4·26 From the data that the applicant company has submitted as well as our analysis of the working of the industry and the applicant company, no doubt remains that, in case the proposal is approved, it will be implemented with speed and efficiency. It has already been stated that the applicant company proposes to divide the additional capacity of 15,000 tonnes per annum into 5,000 tonnes of NG explosives and 10,000 tonnes of Slurry explosives. Their intention is to produce NG explosives, in their present factory at Gomia and they claim that they would be able to do this within a short time not exceeding 18 months from the time of approval. We have already seen that they have plant and machinery which has a basic capability of producing an output of around 43,000 tonnes per annum. There is therefore no reason to dispute the statement that they will be able to add to their output of NG explosives an addition of 5,000 tonnes within the short period of 18 months or two years.

4.27 As regards Slurry explosives, their present production of 1,500 tonnes or so per year is being produced in a pilot plant at Gomia. What is now being proposed is that a new plant for Slurry explosives will be set up in backward district of Madhya Pradesh.

4.28 IEL have claimed that regarding the proposed capacity of 10,000 tonnes for Slurry explosives, 75% would be operational within 24 to 30 months from the time approvals are obtained while the remaining will be achieved gradually thereafter. It appears that IEL will have little difficulty in adhering to this time schedule. The financial requirments are not difficult for them to meet. The foreign collaboration proposal has been already approved by the Government. The additional supply of raw materials like ammonia can be easily managed either from the present source, *viz.*, the Sindri Fertilizer unit of FCI or, if that is not possible, from IEL's own fertiliser unit at Kanpur. The applicants have had long expereince in designing, setting up and operating explosives plants and it should not be difficult for them to organise the new project even at a greenfield site and to carry it out with speed so as to keep to the time schedule. With the long experience in handling explosives that their personnel have had, it should be quite possible for IEL to set up an appropriate team which would take charge of the new project, construct it and bring it into full operation within the time schedule. This would be done by IEL with great confidence because not only do they already have an established market but, with their reputation and hold in the market, marketing even of their new products would be easier for them than for new entrants to the industry. The fact that there would be less uncertainty about the sale of the proposed output is bound to facilitate the speedy construction and operation of the project. It may therefore be assumed that the applicant company will be in a position to keep to the time schedule indicated by them provided the future market conditions justify the schedule as they have indicated now.

4·29 This definite possiblity of the project being completed in time and additional output becoming available is a strong point in favour of the applicants' proposal. Their representatives claimed at the Public hearing that this is an industry which has a long learning curve. They pointed out that IDL took quite some time to enter production and that even then they are not being able to utilise their capacity fully, while IDL alleged that this was due to the market dominance of IEL, their unfair market practices and the unauthorised increase in their output. The claim of IEL is that IDL, like any other new entrant to this complex field, has to go slow in the production of explosives because the technology is complex and production can develop only with experience. It is not everyone who can make explosives. IEL therefore pointed out that various other parties whose proposals have been approved will take much longer than they are expecting to set up their plants and bring them into full operation. They have also pointed out that permitted explosives, especially the P-5 types, have not been very much developed from Slurries anywhere in the world and therefore development of such explosives is bound to take time. The experience of IDL regarding permitted explosives was cited in this connection. Rigid tests have to be fulfilled and field tests follow. All this takes time. Similarly, in small diameter explosives, a 1″ diameter product has not yet been produced, which is fully satisfactory—and this is the most preferred type in India. All these problems will no doubt be solved; but it will take time. Moreover, the consumer of this product is careful and does not easily take to untired and unfamiliar products. In this background, IEL claim, the country might face a serious situation of shortage of blasting explosives, if reliance is largely placed on new entrants to the line. They expected that the CIL/DGOF would be able to enter production by 1978-79 and that some addition to IDL's output could be confidently expected. It would be hazardous to rely on any of the others being able to make headway in a short time. The country requires explosives specially in view of the importance of increased coal output due to the energy crisis. The Department of Coal would prefer and rightly that there should be slightly excess capacity rather than less, as shortage of explosives can cripple plans for additional coal production, and arranging imports at short notice is difficult as well as costly in terms of foreign exchange. IEL's claim therefore is that in view of their being experienced and efficient producers of explosives, permission to them to go ahead would guarantee the supply of explosives especially in the near future, so that no economic hardships are experienced as a result of shortages. We have already mentioned earlier that we have little reason to doubt that IEL will be in a position to deliver the goods as indicated by them.

Entry into Slurries—New Type of Explosives

4·30 Another important point in this connection is that Slurry explosives are coming to be looked upon as the explosives of the future. IEL have pointed out the limitations of Slurry explosives as they have been developed up to now specially in the field of small diameter and permitted explosives. But they admit that these difficulties are being overcome and it is not unlikely that the future expansion may be more in Slurry explosives, NG explosives being confined to particular uses. IEL expects that, as a pioneer in the field of explosives in India and with a proven capability of producing products of high quality, they should not be left out of this new development. As a matter of fact, their claim is that they pioneered even the production and marketing of slurry explosives in India. With the experience that they have already attained in that line and with the R & D work that they claim to have done, they want the facility to set up a new plant for the production of Slurry explosives so that they will not be left behind in this development that is taking place all over the world.

Collaboration with CIL

4·31 A further advantage claimed by IEL in favour of its proposal is that, for making an entry into Slurry explosives, the collaboration that they have obtained is with one of the most experienced and most advanced explosives manufacturers in the world. The Canadian Industries Ltd. (CIL), it has been pointed out, operates six major explosives manufacturing plants in Canada, producing more than 180,000 tonnes of explosives in 1975 of which 65,000 tonnes were slurries. Moreover, CIL has a very active R &D Wing and among the many firsts that CIL has to its credit in explosives technology are certain special contributions to Slurry explosives. This claim has been questioned by others and it has been pointed out that CIL itself has had to supplement its technology by acquiring a licence from Ireco Chemicals. It was also pointed out that CIL has had to face many difficulties, including a major accident in the Slurry explosives plant based on the use of Ethylene—Glycol—Moni—Nitrate (EGMN). This is the type of explosives for which IEL have entered into a collaboration with CIL. It appears that with this kind of difficulties, problems relating to this type of explosives are still being sorted out. It has even been alleged that no further plants with the use of EGMN are being constructed for the time being. It is not possible for the Commission to go into the details of this technological problem. It has to be noted that the teconology of Slurry explosives is still under development and even the best and most leading of world producers may still be learning from the experience actually obtained. All that can be stated is that the explosion that occurred being a fact of recent history (October, 1975), there must be many problems about the technology that have still to be sorted out and the claim that IEL is obtaining the best and well proved technology may not be fully sustained.

Location in M.P.

4·32 IEL has further claimed that many other advantages would follow from their proposal. The location of the unit will be in one of the backward districts of Madhya Pradesh, which itself is acknowledged to be one of the less advanced States in the country in terms of industrial development. A further advantage claimed from this location is that it will reduce unnecessary transport of explosives. A number of mineral projects already exist in the areas surrounding the proposed location and more such projects are in the offing. It will therefore save lot of hazardous and costly transport if explosives are produced at the proposed site & made available for use in the surrounding areas. One argument specially advanced in this connection is that the requirements of Singrauli mines are going to be very heavy in terms of explosives and that, permitting IEL to put up the proposed plant, was the only way the requirements of Singrauli could be properly met. This plea was specially put forward by the representative of the Government of Madhya Pradesh who attended the Public Hearing. He had put forward an estimate that the present demand of explosives in Madhya Pradesh is for about 9,000/-10,000 tonnes per annum and that this was expected to increase to 14,000 /15,000 tonnes per annum by 1978-79. He also suggested that the demand from Singrauli coal field alone will rise to 30,000/ 35,000 tonnes by 1983-84. He also suggested that various other development activities of the Madhya Pradesh Government such as the Chambal Ayacut development would lead to a significant increase in demand for explosives. He therefore suggested that, to avoid undue transport costs and to ensure ready availability of explosives, IEL's proposal should be approved. He also pointed out that IEL's proposal will also add to industrial employment in the State of Madhya Pradesh by providing direct employment to some 500 workers and indirect employment to some 1,000 persons. A further point made on behalf of Madhya Pradesh Government was that the extra capacity of 15,000 tonnes which IEL wanted to set up under the present proposal should be wholly set up in Madhya Pradesh and not partly at Gomia and party in Madhya Pradesh. The estimates given by the Madhya Pradesh Government' s representative about the present consumption and further requirments of explosives in the State of Madhya Pradesh were questioned by other authorities who were present at the Public Hearing. The representatives of Coal India Ltd. pointed out that the demand from that region for explosives was about 2,000 tonnes at preset; it was likely to increase to 6,000 by 1978-79 and 15,000/18,000 tonnes by 1983-84. To the extent that the proposal put forward by IBP is for locations in Madhya Pradesh—as a matter of fact, IBP has taken over the licence given to a State Government undertaking—one cannot say that there is any special advantage to be obtained by approving IEL's proposal, if that is treated as an alternative to the implementation of IBP's project. On the other hand, if both are implemented, the demand within Madhya Pradesh is not likely to be large enough to utilise the output of both, at least by 1978-79 and probably even by 1983-84, and markets will have to be sought outside the State. There is of course nothing wrong with this, but the special claim made on behalf of State Government need not be considered to be of much importance in considering question of approval.

Benefit to Labour

4·33 The applicant Company's record in labour relations and payment of good wages is also cited in support of the advantages that the acceptance of the proposal would confer in terms of employment in a backward area. It may be noted that the additional employment that would be created by this project would be very small, namely, about 500. This is a capital intensive type of project and is not likely to have much direct impact on the economic development of the surrounding areas. As it is, no major development has taken place around Gomia as a result of the establishment of IEL, except that some special steps have been taken by IEL to develop a model village to provide facilities for certain artisans, etc., but this is more a welfare activity and not the economic result of the location of the explosives unit.

Possible Disadvantages from the Proposed Project

Increase in Dominance of IEL

4·34 The most important disadvantage which may arise from approving the project is that the already predominant position of the applicant company in the blasting explosives industry will be further strengthened. It has been claimed on behalf of IEL that compared to the total licensed capacity, their capacity is not more than 43%. IEL, however, admits that their share in the market for commercial blasting explosives is about 65/70% at present. But they further pointed out that, if the various proposals already under consideration are approved, IEL's share will progressively decline and, by 1983-84, it will not be more than 36%. This assessment is based on a number of assumptions, one of the important ones among them being that IEL's own expansion will not adversely affect the coming into existence and successful operation of the other competing proposals.

4·35 The history of IEL and the way it steadily increased its actual capacity and output, many times without appropriate sanction from Government though of course with the knowledge of at least some Government authorities specially of the Government Directors on its board, suggests that there is a certain pattern of behaviour which IEL has adopted from the very beginning and which makes it difficult for competition to arise and to make headway. Having been given the privilege of being the only producer of blasting explosives in the country for about ten years, IEL have maintained their position quite firmly. The fact that IEL can offer a complete service to explosives users, including the accessories that are required, makes it quite difficult for others to enter the field if they have only explosives to offer. IDL did not have this handicap, in that they started with detonators, etc. and then entered the production of explosives. They have had other handicaps however including the fact that IEL was producing a product to which all users were accustomed over a long period and no special problems regarding meeting safety requirements had to be faced by IEL while a new producer like IDL, specially with a new product like slurry explosives, had to face these. IEL have provided certain data to the Commission to show that, even when there were shotages in the market of IEL's products, IDL could not fill up the gap. Our examination of such data suggests that this happened specially in the case of permitted explosives and in these IDL had the problem of getting them approved for use. The most significant such example was in the period immediately after the explosion occurred in IEL's plant at Gomia in 1973. While there were discussions about speeding up the testing and approval of certain products produced by IDL so as to make up for the shortage that was faced because of IEL's temporary stoppage of production, the procedure could not be completed in quick time specially to enable IDL to market any large quantities. As we have already seen, IEL was also able to restore its production within a short time. All past experience, therefore, suggests that if IEL's capacity is not limited, new entrants to the industry are bound to face a very difficult situation and some of them may even be frightened off before they actually make a beginning. The history which we have indicated earlier of various infractuous attempts at entry will indicate how real this fear can be.

4·36 A further point of importance in this connection is the tendency of IEL, of which we have by now enough proof, to establish potential capacity much larger than formally authorised to them and to make use of every available loophole and opportunity to get additional capacity regularised. Even the fact that there are some Government Directors on the Board of IEL is attempted to be made use of to further this objective. The fact that some of the critical plants at Gomia are already potentially capable of producing an output far larger than the output now regularised is itself an indication of how difficult the situation for the competitors would be, if additional licensed capacity is made available to IEL. If the history of the Gomia plant is any indication, it would be the same story about the new unit proposed for the production of slurry explosives. We have been assured by the representatives of the applicant company that the plant and machinery they are proposing for expansion would be just capable of starting the proposed expansion and no more. "The capacity of the new plant and the plant at Gomia will be as licensed," "IEL have stated, "and there will be no cushion in the overall capacity above that licensed. Of course it must be recognised that with continuous R & D work, it will be possible to achieve some productivity increases in course of time." And again, "if all the applications are now cleared our maximum production capacity can be 50,000 tonnes which we feel is necessary to meet the projected demand. No security standby capacity has been provided and total production could be adversely affected if accidents occur." It is difficult to reconcile this with the whole record of the Company in the past, and our analysis which shows that the capacity at Gomia itself can be 43/44000 tonnes with only some balancing equipment.

New Explosives Manufacture only in Public Sector?

4·37 One of the points made by public sector agencies like IBP and FCI (Not DGOF) against the present proposal is that, ever since 1970, the Government has decided that further expansion in the field of commercial blasting explosives would be in the public sector. This followed the examination of the whole problem by an Official Committee at a time when, due to labour trouble, there was some disturbance in the supply of explosives in the mining areas. In connection with a calling attention notice in Parliament (Lok Sabha on 12th August, 1970 and Rajya Sabha on 13th August, 1970) the then Minister for Petroleum and Chemicals and Mines & Metals stated that it was unfortunate that the only factory producing explosives, an important item for the development of the mining industry, was in the private sector. He therefore announced that the Government intended to established an explosives factory in the public sector. To a question whether the Government would establish all explosives factories in the public sector, his answer was "yes". On this basis, it has been suggested that in view of this announcement of public policy in Parliament, no further expansion or setting up of a new unit in the private sector should be permitted. It is uncertain whether the Minister intended categorically to rule out all expansions of the existing private sector units or even the setting up of a new private sector unit. What was definitely and categorically announced was the intention to set up a unit in the public sector. The Fertiliser Corporation of India was immediately asked to look into the matter. Unfortuantely, due to various difficulties, the matter has been considerably delayed and it is only now that the IBP has come up with proposals for setting up units for the production of commercial blasting explosives. The FCI's own proposals are still somewhat uncertain. That the Government did not intend to shut out private units from this industry is clear from the Guidelines to Industry issued from time to time. No indication is given in the latest Guidelines—those for 1976-77—of any such intention; where it has been stated that additional capacity will have to be licensed specially to meet the expected demand by 1985, there is no indication that this will be confined to the public sector. This argument cannot therefore be accepted against the proposal.

4·38 At the same time, an argument put forward by the applicant company related to this may be mentioned. Regarding an objection that licensing of additional capacity to IEL would create difficulties for new entrants including the public sector organisations like IBP and FCI, the applicant company has replied that such fears need not be entertained "considering that Government buys 80% of the explosives produced, and considering that the Government owns IBP, FCI and DGOF the new public sector projects should not have any apprehensions at all because they will have an assured market. If anybody should be worried, it is IEL because it is a case of the Government customers putting up their own production facilities". And further, "considering Goverment's known preference for public sector suppliers, the public sector undertakings who are objecting to our proposal should have no cause for worry. Indeed, it is a measure of IEL's conviction regarding the impending shortage of explosives that it is investing Rs. 13·5 crores in such circumstances where there are public sector manufacturers coming up in this field". In this connection, what needs to be remembered is that while it is true that 80% of the explosives are taken up by various Governmental & public sector agencies, this does not mean that all of them have a common purchasing programme & policy. While certain prices may be negotiated by the DGS & D on behalf of the Central Govt. and these prices may be taken advantage of by other public sector organisations and state Governments, many agencies do their own purchasing. User organisations enjoy a degree of autonomy and it may not always be practicable for them to be forced to use public sector products if they strongly feel that the public sector products may not be good enough for meeting their requirements. Perhaps one may say that the market for the NG explosives factory that is being jointly put up by Coal India Ltd. and DGOF is assured because this is a kind of captive plant of the CIL. But this cannot be said either about FCI or IBP. These are commercial organisations even though they are in the public sector, and will have to compete with private sector producers for the custom of various Governmental organisations. Price and quality being the same, they may receive some preference from other public sector agencies; but who can be certain that price and quality will be the same? An established and dominant producer, specially one whose basic plant facilities were established along back and have been almost fully depreciated, may be in a position to give stiff price competition to new units whose capital costs would be very much higher. As regards quality, as already mentioned earlier, IEL has the advantage of producing explosives which have become traditional and which are well known to all the users of explosives. The new products of Slurry explosives, as the experience of IDL suggests, will have to meet resistence from persons long versed in the use of the traditional explosives. It would not therefore be correct to assume that the public sector producers will have an easy walkover in finding a market for their products. They as well as other private sector prospective entrants to the industry are bound to feel nervous if IEL can expand its capacity to a significant extent. The position of new and prospective entrants (except Umaid Mills) will be specially difficult because of the fact that most of them are intending to produce only explosives and not accessories. Therefore, in addition to other methods such as price cutting and manipulation of supply in areas of new entrants as well as in the more remunerative markets, tie up with accessories may also be a method which, in one way or the other, can create problems for them*.

Dangers of Overlicensing

4·39 It has been the experience in many industries that when a large number of licences are issued, much larger than justified by the expected demand, implementation i.e. creation of capacity—suffers; and the weaker and newer units specially find that they cannot proceed with the projects that they had contemplated. In an industry like this where one unit has dominated the field for a long time, a certain degree of nervousness already exists when a new unit attempts to make an entry. If on top of it, such units find that they will be facing a possible situation of excess capacity, in view of the competition with a well established giant, they cannot but feel nervous and begin to have second thoughts. The history of the industry outlined earlier suggests that excess capacity licensed to IEL has been one of the important factors which have kept out other intending units. Even well-established foreign companies have expressed hesitation in entering collaboration in such a situation. It is therefore necessary that, while shortages must be avoided, we should not go to the other extreme and licence so much additional capacity, and specially additional capacity for the established dominant unit, that the entry of new units in the industry is further handicapped. This is an important aspect from the point of view even of public sector units and much more definitely of prospective private sector units.

No Dominance in future?

4·40 As regards the future position of IEL in the industry if the proposal is approved, the representatives of the applicant company have claimed that, whatever their position in the industry today, it is bound to become one of less dominance in future. They have based this statement on approved capacities and new applications for licences. What is overlooked in such a conclusion is that the very expansion of IEL's capacity in a substantial manner is likely to discourage some of the new entrants; and therefore even approved proposals may fail to materialise, thus maintaining the dominant position of IEL in act.

4·41 IEL has further claimed that its dominant has never been exploited to the disadvantage of the consumer. It has produced products of a high quality, maintaining an excellent safety record, both at its works at Gomia and through the whole distribution net work. It has maintained stable prices over a long period of time, prices being the same in 1974 as they were in 1958, and it has ensured the availability of explosives as per the requirements of the economy, showing commendable foresight and capability. It is therefore claimed that even if, for the sake of argument, it is assumed that IEL has and may continue to have a dominant or strong position in the industry, this will not affect the economy adversely. We have already pointed out that, while there need be no doubt about the record of safety as well as quality claimed by IEL, one cannot so readily agree with the statement that the consumer has not been exploited. True, the prices remained largely steady between, 1958 and 1974; but as shown by our examination of IEL's financial working in Chapter II above, what was the profitability, specially in the earlier years? Was that not so high that, after paying high dividends, IEL was still in a position to build up substantial reserves and also depreciate the value of original plant and machinery rapidly? Does this not show that the monopoly position was exploited? Comparison with imported prices is of little value in this context because the imports were practically all from the parent company *viz.*, ICI (U.K.) which itself is a cartel and which had almost maintained India, like many other former areas in the British Empire as its exclusive market.

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*In addition to these points a further point, has been made that public sector units are handicapped in that they have to and do conform to strict business ethics. Competitors in the private sector may have no such compulsion. Unless there is concrete proof of such unethical practices, no importance can be attached to this point.

IEL continuing as Foreign Subsidiary

4.42 A further argument against approving IEL's proposal is that IEL has been, continues to be and is intended in future years to remain a subsidiary of ICI (U.K.). Regarding the specific point about whether the equity held by ICI (U.K.) was proposed to be reduced as a part of the expansion proposal, the representatives of the applicant company pointed out that they considered this majority holding to be a great source of strength "since it enables us (sic) continued access to sophisticated explosives technology and technical information and support from a world leader in the chemical industry." In a letter to the Commission, the Company had pointed out that, as the scheme of finance is such that no new share capital needs to be issued, there is no question of diluting ICI's holding in relation to the present proposal. It has been stated: "Recently some negotiations with Government have been held as a result of which the shareholding of ICI might come down to 50.42%. Neither are they willing nor do we wish to reduce the ICI shareholding any further. This is because of the change in our relationship which will take place if the shareholding went down to 50% or below; we derive considerable strength and help from our present relationship which contributes to our achieving the high technical performance and also enables us to keep our staff abreast and in the forefront of technology by intermingling with the technical staff of ICI and its subsidiaries which is possible only at present level of the shareholding".* Moreover, in the technical collaboration agreement between ICI and IEL regarding collaboration for the Kanpur Fertiliser project which continues to be effective, there is a specific provision under which ICI has the option to terminate the agreement if "ICI ceases to hold directly or indirectly a majority of the voting stock of IEL." A similar provision, it may be recalled, existed in the earlier agreements between ICI and IEL which have now expired. IEL will therefore continue to be a foreign majority company and no change will come about as a result of implementing this proposal.

4.43 A related point in this connection is that, even though IEL has been in existence now for about 20 years and has been in operation for over 15 years with a confortable financial position, its R&D activities have not been such as to enable is to be self-sufficient in respect of further development even in the explosives field. As indicated earlier in this Report, when the initial I (D&R) A application was made in respect of the present proposal, there was no mention of foreign collaboration required for the production of Slurry explosives; as a matter of fact, it was then specifically stated that no collaboration would be required. The applicant company have explained that as they worked further on the proposal they discovered that it was necessary to obtain technical information on a particular commercial sensitiser. Though their own R&D was capable of enabling them to develop Slurry explosives in general, there was this particular technical aspect where they needed assistance. It has been further pointed out that the terms of the assistance are not unreasonable compared with other collaboration proposals in this industry. As the Government has already approved the terms of the foreign collaboration proposal, we may assume that the proposal is on terms that may be considered reasonable and within the limits considered appropriate by Government. But the point remains that, even at this late stage of its functioning in the explosives field, IEL cannot do without collaboration from abroad. It may be said that technical developments are taking place in the world rapidly and that there is nothing wrong in purchasing technology. Even the largest producers in the world continue to buy technology from others. This is true. But the important point is that those who give proper attention to R&D buy as well as sell technology abroad. We do not find that IEL has been able to sell technology developed by it anywhere else in the world. As in the case of many other foreign companies, it appears to have been content with depending on its parent company for major technological developments, confining its R&D more to adaptation for the purpose of meeting the requirements of important substitution regarding raw materials and from the point of view of orienting the product to the specific requirements of the Indian market.

4.44 The effect of IEL continuing to be a subsidiary of ICI (UK) and depending on foreign collaboration for the new plant which it proposes to set up, would be that the flow of payments abroad would not only continue but increase. We have already seen 'that, in this comparatively short period of 16 years of IEL's operation, the parent company has been paid amounts much larger than the initial cash investment, and the value of the investment has substantially appreciated. This is in addition to whatever was added to the profits of ICI (India) as a result of the selling arrangements which IEL has had with them. The scheme of Finance for the present proposal relies on internal sources so that the larger turnover and the larger profits will be relatable to the same equity base.

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*Letter from IEL Ltd. dated March 25, 1976, addressed to the MRTP Commission, New Delhi.

In addition to the payment for technical collaboration, dividends would also increase. There would thus be a continuously adverse effect in terms of the foreign exchange outgo arising from the proposal. It has been claimed by the applicant company that the value of their exports more than meets the foreign exchange payments involved by way of the dividends that ICI (UK) receives on that part of its share capital which relates to the explosives business. The details given by the company are as below:

TABLE 46

Foreign Exchange outgo on account of dividends from the Explosives Division.

	(Rs. lakhs)
Explosives Division Share Capital (before fertiliser issue) .	480
ICI (U.K.)'s share being 51% .	245
20% dividend thereon .	49
Less tax @ 25% .	12
Outflow on account of dividends to ICI (UK) for explosives .	37

Source:—The applicant company.

"Exports were at a level of Rs. 41 lakhs in 1974-75 and for the current year they are planned at around Rs. 70 lakhs. It will be clear that the inflow from Explosives exports will more than compensate the outflow on account of dividends to ICI (UK) (Rs. 37 lakhs) and in respect of the collaboration with CIL (Rs. 6 to 9 lakhs), and at the level of exports of Rs. 70 lakhs proposed for the current year there will in fact be a substantial net inflow of foreign exchange."

We have already examined the record of exports earlier, and seen that exports are effected at prices which are far below the cost of production, the shadow price of foreign exchange being far higher than the official value. We cannot therefore agree that this argument adequately meets the point that there would be a continuing adverse effect on the country's foreign exchange outflow as a result of approving the proposal.

4.45 One of the reasons why the continuance of foreign subsidiaries may be tolerated is that they are expected to be in a better position to bring in technology which is otherwise difficult to obtain, the technology being of special importance in the Development of the concerned industry. It does not appear that this is the case now in respect of the explosives industry. The technology is either available already or it is being obtained by undertakings which have less or no foreign equity; and the technologies that they are obtaining are in no sense worse—some may consider them better—than what is being proposed to be obtained by the applicant Company. In this situation, obviously, it is better to encourage companies which are fully or largely Indian as against those which are subsidiaries of foreign companies.

Scheme of Finance for the Proposed Expansion

4.46 *Proposed capital expenditure and phasing.*—The change made by the IEL in its estimates of capital expenditure for the proposed project have already been outlined in Chapter III above. The final estimate given by them—and a detailed break-up of the expenditure—is given in Appendix VIII.

One of the initial points to be examined in this connection is how far these capital expenditure estimates are realistic. On this point, some of the objectors stated in the public hearing that the estimated expenditure is very high and that an explosives plant of 15,000 tonnes should not normally cost more than about Rs. 5 crores. The applicant company however stated that the Explosives Plant as such would cost only Rs. 470 lakhs, and the balance of expenditure of Rs. 880 lakhs is for the Ammonium Nitrate and Sensitiser plants and for buildings, site development and other facilities proposed to be undertaken at the new site along with the expansion of the explosives plant at Gomia. As compared to the estimated expenditure of the IEL, the IBP has estimated a total capital cost of about Rs. 485 lakhs for a capacity of 20,000 tonnes per annum (three plants), of which the cost of plant and machinery is estimated at about Rs. 266 lakhs. The other applicants, *viz.*, WIMCO and Chowgule have estimated total capital costs of Rs. 344 lakhs and Rs. 240 lakhs for capacities of 24,000 tonnes and 20,000 tonnes respectively. If we exclude the cost of land and building, site, etc. from all the estimates and concentrate on the cost per tonne of plant and machinery, we find that the cost per tonne in the estimate of the IEL is very high as compared to the cost per tonne of the other projects (IEL Rs. 7000, IBP Rs. 1333, WIMCO Rs. 1250 and Chowgule Rs. 600). An important point in this connection mentioned by IEL is that they are proposing to set up plants for Ammonium Nitrate as well as a Sensitiser plant and this substantially adds to their capital cost. The point made by the other project authorities is that with the technology that they are expecting to use, and with the facilities that already existing the country and specially with the FCI, they do not need to go in for these heavy investments. In any case this would mean considerable saving in terms of capital costs for the same additional capacity and output, provided it is not found necessary to set up capacities for basic materials like Ammonium Nitrate. A fear has also been expressed by some objectors that one reason for the excessive capital outlay proposed by IEL may well be that more capacity will be created than is actually proposed at this stage:

Foreign Exchange Requirements

4.47 IEL expects to import some plant and machinery for carrying out the project. The foreign exchange requirements for this purpose are estimated at Rs. 114 lakhs. The Company has stated that the payments for this foreign exchange requirement will be made by remittances from rupee funds against Capital Goods Licence. If, however, they are asked by Government to arrange for foreign loans for these payments it is intended to obtain finance from the Industrial Credit and Investment Corporation of India or the Industrial Finance Corporation of India. The breakup of the amount of Rs. 114 lakhs is given by the applicant company as under. In addition, the customs duty on these imports is estimated at an average of 60% of the cost:

TABLE 47

Capital cost and details of imports of Plant and Machinery

		(Rs./lakhs)
1.	Nitric Acid Plant	24
2.	Ammonium Nitrate Plant	10
3.	Slurry Cartridging and sensitiser Plants	41
4.	N.G. Explosives Cartridging	9
5.	Ammonia Storage and Rail Tankers	24
6.	Greenbats	6
	TOTAL :	114

Source:—The applicant Company.

4.48 In this connection, it may be mentioned that the foreign exchange expenditure per tonne of extra capacity proposed by the IEL is Rs. 760 while that estimated by the IBP is Rs. 314 (Rs. 62.89 lakhs for a capacity of 20,000 tonnes).

Sources of Funds

4.49 IEL have stated that they have the ability to finance the expansion entirely out of their own resources. The Company expects to meet the requirements of finance through internal cash generation from depreciation and retained profits. In this connection, and in support of their statement, they have submitted details of the estimated cash flow position for the three years 1976 to 1978 as under:—

TABLE 48

Estimated cash flow position—1975-76 *to* 1977-78

(Rs./lakhs)

	1975-76	1976-77	1977-78
Inflow			
Profits before Tax	1234	1234	1234
Depreciation	592	619	630
TOTAL :	1826	1853	1864

TABLE 48—*Contd.*

(Rs./lakhs)

	1975-76	1976-77	1977-78
Outflow of funds			
Taxation	160	1179	866
Dividends	559	516	430
Capital expenditure for projects under consideration	459	291	181
Working Capital	(—) 74	223	146
Loan Repayments	329	332	298
	1433	2541	1921
Surplus/Deficit	393	(—) 688	(—) 57
Opening Balance	727	1120	432
Closing Balances	1120	432	375
Present Overdraft Facility	800	800	800
Additional overdraft facility available based on Tandon Committee recommendation	400	700	750
Total funds available	2320	1932	1925

Source:—The applicant Company.

Method of arriving at the above figures

4.50 (a) In the preparation of the cash flow position, the Company has assumed that the level of annual profits during the three accounting years from 1975-78 would remain at the level of 1974-75.

(b) The depreciation for the future has been estimated by the Company after taking into account the possible additions during the future three years and having the accounting year 1974-75 as the base. In 1974-75, the Company had written off depreciation to the extent of Rs. 583 lakhs.

(c) One of the items in the out-flow of funds is the liability on account of taxation on profits. The taxes paid on profits by the Company since 1970 to 1972 had been negligible. They amounted to a total of Rs. 8 lakhs for all these three years. In 1973 and 1974, no taxes had to be paid. This is mainly because of the various tax reliefs such as Development rebate available to IEL. The advance tax payment in 1974-75 was Rs. 80 lakhs. The Company has provided for a similar amount to be paid as advance of taxes for 1976 in addition to the balance of Rs. 80 lakhs for 1975. The same method has been adopted by the Company in estimating the amount of liability consequent upon payment for taxation.

(d) For 1974-75, the Company declared a dividend of 20% on its paid up capital. The estimates for dividends payable for the subsequent three years have been made on the assumption that the present declared rate of dividend of 20% would continue in the future also. It would appear from the above statement that the Company has estimated the total amount of dividends payable for 1975-76 and 1976-77 at a level higher than that for the year 1977-78. This is mainly because the amount of dividend payable for these two years includes also the instalments of deferred dividends in respect of the year 1975 as, in 1975, although the Company declared 20% as dividend, the actual payment had been restricted under the Dividends Regulation Act.

4.51 In addition to the project for expansion of the existing capacity of the Explosives Division, the Company has also a few other projects in hand. The break-up of the estimated capital expenditure under the various heads in respect of these projects is given below:—

TABLE 49

Estimated capital Expenditure on all the Projects under implementation by IEL

(Rs./lakhs)

	1976	1977	1978
1. Nitrocellulose Project—(Pending with Government)	60	110	31
2. Research & Development (Including basic research)	40	27	30
3. Staff Housing	17	10	..
4. Bagged Urea Warehouse, Kanpur (For Fertilizers)	20	..	..
5. Coal Fired Boilers at Kanpur	124	..	..
6. Other Capital Expenditure (Renovation & Replacement):			
—Explosives	123	92	80
—Fertilisers	75	52	40
TOTAL	459	291	181

Source:—The applicant Company.

4.52 It would appear that the working capital estimate for 1975-76 has been put at Rs. 75 lakhs lower than the working capital for 1974-75. The Company has explained that the reduction in the estimate of working capital as compared to 1974-75 is mainly because in 1974-75 the current assets had gone up by Rs. 10 crores over that of 1973-74, that it was an unusual feature and in all probability it will be brought down considerably; and this fact has been taken into account in estimating a lower level of working capital for the year 1975-76.

4.53 The company had taken long term loans from various institutions and the instalments that may fall due during the coming three years have been shown under the head of loan repayments. The details of those repayments are given below:—

TABLE 50

Projected Repayments of Outstanding Loans

(Rs./lakhs)

	1976	1977	1978
IDBI (Rupee)	123	177	177
IFC(W)- (Dollar)	72	40	6
TEC, Japan- (Yen)	115	115	115
Mercantile Bank Ltd. (£)	19	..	..
TOTAL	329	332	298

Source:—The applicant Company.

4.54 It would appear from the Balance-sheet of the Company for 1974-75 that they had a closing balance of Rs. 727 lakhs by way of cash and bank balances in hand at the end of September, 1975. This has been shown as the opening balance in order to arrive at the closing balance of funds available at the end of the year 1975-76.

4.55 In regard to the present over-draft facilities available to the Company, they have stated that their present-over-draft facilities are Rs. 800 lakhs and they are all from nationalised banks. Rs. 500 lakhs is from the Central Bank of India and Rs. 300 lakhs is from the State Ban kof India. The Company has not availed of this facility so far. It would be seen from the Profits and Loss account and Balance sheet of the Company for the year 1974-75 that the Company has been in a financially satisfactory position and the loans both secured and unsecured received by them have been largely on a long term basis. It had been mainly depending on its own resources and had not gone in for borrowings to meet its needs of working capital to any substantial extent. It can be also observed that the Company had a surplus balance of about Rs. 727 lakhs as cash in hand and in Banks at the close of the financial year 1974-75. Hence, it may not be incorrect to assume that the Company would be in a position to avail of its over-draft facilities of Rs. 800 lakhs if the occasion arises. The Company has also stated that, if necessary, it may be able to borrow more basing its requirements on the Tandon Committee's recommendations. The estimated amounts available under this head have been also given separately in order to indicate the total funds likely to be available to the Company during the project period.

Availability of Finance

4·56 The Reserves and Surplus of the Company at the end of September, 1975, stood at Rs. 2642 lakhs. IEL have stated that they would be able to finance the expansion project entirely from out of their own resources. The intention appears to be to meet the finances required for the expansion from out of the reserves available with the Company. It is clear from the Balance Sheet of the Company for the year ended September, 1975, that the Company had no necessity to borrow short term loans from banks for meeting its requirements of working capital. The equity: debt ratio in 1974-75 was 1 : 0·31 (see Table 13 above). In arriving at the total funds available to the Company, they have taken into account the present overdraft facilities of Rs. 800 lakhs and also the additional overdraft facilities which in the Company's view can be available on the basis of the Tandon Committee's recommendations. IEL have arrived at the balances available after providing for dividends at the rate declared in 1975. Also, in addition, they have provided for an amount of Rs. 931 lakhs to meet the capital expenditure for projects other than the expansion of explosives plant over the period of three years ending with 1978. It would, therefore, appear that if the Company is to meet the obligations arising out of the expansion project over a period of three years and if they are to meet the same from out of the surplus funds available under reserves and surplus, they may have to go in for some additional loans by utilising their over-draft facilities to the extent they divert funds for the capital expenditure required for expansion. This is necessary mainly because, in the past, they have been utilising the available reserves for meeting the requirements of working capital. If funds are diverted from reserves to meet the capital expenses, to that extent, they are likely to fall short for the requirements of working capital. In all probability, therefore, IEL may have to make up the deficiency by borrowings. This is further subject to the assumption that they continue to declare dividends at the level of 1975, i.e. 20% on paid up shares, and the Capital expenditure on the projects other than expansion of explosives would continue to be met as estimated by the Company. If, however, any of the other projects get postponed for one reason or the other, or the Company does not declare dividends at the 1975 level, it may not be necessary for the Company to go in for borrowings on a large scale. In explaining the availability of finances to meet the expansion of the explosives plant, it has also been stated by them that they can go in for raising of deposits from the public under the "*Acceptance of Deposits Rules*". According to these Rules the maximum amount that may be raised as deposits from the public is to the extent of 25% of the share capital and reserves. On this basis, the amount that can be raised by IEL, if required, has been given below :—

Position at 30-9-1975

	(Rs. crores)
Share capital	21.48
Reserves	26.42
TOTAL	47.90

25% of share capital and reserves 11·97, i.e., about 12 crores; this the company may be in a position to raise by way of deposits from the public.

4·57 An examination of the scheme of finance as submitted by the applicant Company suggests that it would not be difficult for the applicant Company to meet the cost of proposed expansion from its own resources. It is seen that in effect what IEL is proposing to do is to go in for short-term borrowing or bank advances for purposes of financing the proposed project to a certain extent; but this prospect arises because, in the past, it has used its own long term funds for the purpose of meeting its working capital requirements. It has become the normal practice in India that working capital is financed almost entirely from short-term borrowings and it would not be unreasonable for the IEL also to assume that it can do so when necessary. On that basis, it would be in a position to use its internal funds for financing expansion while increasing its bank borrowings to meet the requirements of working capital. Moreover, as the applicant Company has pointed out, unlike many companies in the private sector in India, they have not upto now borrowed by way of public deposits, which they are entitled to do under the Rules prescribed for the purpose. It would not be necessary for them to resort to any long term loans from public financial institutions. The only occasion for them to do so would be if they cannot find foreign exchange for the project except on the basis of a loan from a financial institution like the ICICI or the IFCI. But this depends upon whether Government grants them foreign exchange against rupee payment which they can finance, or suggest that they can go in for a foreign exchange loan.

4·58 There is little fault to be found with the scheme of finance as submitted by the applicant company. As mentioned earlier, the major objection on the financial side to the present proposal is that the capital cost for the project appears to be excessive but, even if we ignore the possibility that this may represent the existence of potential capacity larger than what is proposed at the moment and accept as valid the statement that the larger capital expenditure is due to the inclusion of certain items which are not to be found in other projects, it cannot be overlooked that this does mean avoidable additional capital expenditure. If IBP and other applicants in this line find that the same quantities of explosives can be produced without going in for these particular plants which are quite expensive, because the facilities that exist elsewhere in the country can be utilised more effectively, there is no reason why the country should incur this additional capital expenditure at a time when there is so much shortage of capital in the country. On this ground, therefore, IEL's proposal can be considered to be less beneficial to the country as compared to the other proposals which have already been approved. This view would be based on the assumption that basic raw materials like Ammonium Nitrate and sensitisers would be available to explosives manufacturers from alternative sources and thus it will not be necessary for them to invest on plant for their manufacture.

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CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

5·01 Taking into account the analysis of the proposal in its various aspect, it appeais to us that the only ground on which IEL's proposal could be supported would be that IEL is in the best position to add speedily to its output. In view of the uncertainties and difficulties involved in the development of new projects in this industry, it is not unlikely that the gestation period of the new entrants may prove to be longer than what they have allowed for and critical shortages may therefore arise in the next few years or even in the period of the 6th Five year plan. Looking at the fact that IBP as well as Narendra Explosives have foreign collaboration proposals from reputed parties abroad and further that they have already done a great deal of spade work, there appears to be no reason to doubt that they will go ahead with their projects and bring them into operation; but one cannot overrule the possibility that this may take a little longer than what they have estimated.

5·02 We have assumed that the demand for explosives in 1978-79 is not likely to exceed 80,000 tonnes. We have put the estimate in this negative manner because recent developments create doubts whether the demand would be even as large as this. The representatives of the DGOF, for example, indicated at the public hearing that their estimate would be that demand may not exceed 75,000/76,000 tonnes by that time. At the Public Hearing on the proposal of M/s. Chowgule and Company Pvt. Ltd., held by the Commission on 8th June, 1976, the representative of the Planning Commission stated that this estimate is also likely to be revised downwards. In this connection, we have also to take into account the fact that, due to various reasons, the demand for coal is not developing as expected.*

5·03 The present production and supply of explosives is as follows :—

IEL	35,000 tonnes	
IDL	10,000 tonnes	(approximate)
Total :	45,000 tonnes	

In addition, according to the FCI, ammonium nitrate and fuel oil (ANFO) equivalent to about 6,000 tonnes is being sold. According to Indian Oxygen, LOX equivalent to a little less than 2,000 tonnes is being sold. The total supply of explosives in 1975 can therefore be put at about 53,000 tonnes. According to the applicant Company, the supply by 1978-79 would be as follows :—

IEL	35,000 tonnes
IDL	20,000 tonnes
IOL	2,000 tonnes
FCI IBP	10,000 tonnes
Bhandara	2,000 tonnes
Narendra	1,000 tonnes
Total:	70,000 tonnes

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Therefore, according to IEL, there would be a clear gap of 10,000 tonnes in 1978-79 even if one makes very optimistic assumptions about the progress of various other producers. IEL has pointed out that IDL has been in operation for some years now and has a licensed capacity of 22,500 tonnes but produces much less. Assuming that they will produce 20,000 tonnes in 1978-79 envisages more than a doubling of output within the short space of two or three years. If Indian Oxygen continues at the present level and FCI continues to supply ANFO at around 7,000 tonnes, that exhausts the more certain prospects of supplies. According to IEL, it would be doubtful whether other intending manufacturers are at a stage which can ensure an adequate level of production by 1978-79. The representatives of IEL at the Public Hearing admitted that absolutely accurate forecasting in such a situation may not be feasible and one must go on the basis of probabilities. But past experience suggested that new manufacturers are bound to take time and there would therefore be substantial shortages in 1978-79.

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*In this connection, the following news report may be of interest. "The Planning Commission has warned that the current year's coal production target of 108 million tonnes may turn out to be far ahead of demand unless vigorous steps are taken to market coal." It has been further stated that all the important consumers of coal have built significant stocks, the stocks of cooking coal with the steel plants have substantially improved and pit-head stocks have also risen substantially. In this product no large exports can be expected. There may therefore be difficulties in maintaining or increasing coal production as per the earlier programmes—Financial Express, May 31, 1976.

5·04 We are not sure that this analysis of the applicant Company is correct. IDL have gone through their teething troubles over the last several years and it should be possible for them to produce the full output of 22,500 tonnes at Rourkela with the use of continuous process as explained earlier and also begin to produce some output, say 2,500 tonnes, in their Hyderabad Plant which has recently been set up. In fact at the Public Hearing on 8th June, 1976, IDL have stated that trial production has started in their Hyderabad plant and commercial production will start very soon. It would not be technical problems so much as market constraints that may keep the output of IDL lower than 25,000 tonnes. Regarding the Bhandara project, their time schedule has been carefully worked out and it appears that their statement that 2,000 tonnes will be available in 1978-79 and 5,000 tonnes in the next year is realistic. FCI stated at the public hearing that they are in a position to sell ammonium nitrate for use in the form of ANFO to the extent of 15,000 tonnes by 1978-79. As far as FCI's new plant is concerned, its representative was cautious and said that production at the new plant will commence in 1978. From the information available at the subsequent public hearings, it appears that nothing beyond an additional supply of ANFO may be assumed as far as the FCI is concerned. The representatives of IBP stated that two new plants would be completed in the Fifth Five year Plan period with a total capacity of 10,000 tonnes. As IBP is not taking up the production of basic materials but only the mixing and cartridging part of explosives manufacture, it would not be inappropriate to assume that they would be able to contribute not less than 5,000 tonnes—may be even 10,000 tonnes—by 1978-79. About Narendra Explosives, it is difficult to say at what speed their project will progress. We may assume only 1,000 tonnes by 1978-79 as was done by IEL. On the above analysis, the supply of explosives by 1978-79 would be about 84,000 tonnes. Moreover, projects for the creation of a new capacity exceeding 1,00,000 tonnes would have been largely implemented by that time. We cannot therefore conclude that it is essential to approve of IEL's proposal in order to avoid shortages in the coming few years.

5·05 As regards the position in the Sixth Five Year Plan period, we have already indicated that there appears to be little reason to fear any shortages in the earlier years of the Sixth Five Year Plan. As regards the latter part of the 6th Plan, we do not think that approving IEL's proposal at present is necessary in order to meet the possible contingency of shortages in, say, 1983-84. In the case of Slurry explosives, the gestation period is likely to be shorter, say about two or three years, as compared to the longer period which has been experienced earlier for NG explosives, specially after there has been an initial acceptance of these even for the 'permitted' uses. Moreover, there are a number of other proposals under the consideration of the Government and they have the merit of being from undertaking which would be independent and new entrants to the industry, and thus not contributing to the continuance of the monopolistic situation there. Moreover, IBP has further plans of development in this line. The DGOF is working on the possibility of expending the production at Bhandara by an additional 2,500 tonnes per year and also of setting up another plant for NG explosives in the South. The FCI is active in finding a suitable collaboration for the final stage of Slurry explosives' production for which they are otherwise well equipped. In case none of these proposals materialise, there would be adequate time to consider IEL's expansion proposal for meeting the requirements of the latter half of the Sixth Five Year Plan period. In this connection, it cannot also be overlooked that there is no indication available today about what the shape of the 6th Plan is going to be and what the targets of explosive—consuming sectors such as coal and other minerals will finally be. The present estimates have therefore to be treated as very tentative. Moreover, there is no necessity to take a decision now for capacities that should come up in 1982 or 1983. A decision taken in 1979 would be quite adequate for meeting such a possible contingency.

5·06 We may also mention that IEL also has two other possibilities open to it to increase its production at short notice and without much difficulty from its existing plant at Gomia. Firstly, as can be concluded from the information supplied by them in answering a query specifically raised at the Public Hearing their NG plants at Gomia are basically capable, may be with some adjustments and balancing equipment, to produce about 43,000 tonnes of explosives per annum. From their pilot plant for Slurry explosives they are already producing about 1,500 tonnes of that type of explosives; and they can produce totally 4,500 tonnes of such explosives according to the information supplied to the Commission. Their foreign collaboration agreement in respect of Slurry explovies has already been approved by the Government so that the new technology is available to IEL irrespective of whether the present proposal is approved or not. According to a modification to industrial licensing policy announced by the Government on 25th October, 1975, even undertakings coming within the purview of the MRTP Act and F.E.R. Act can utilise their installed capacity even though this may be in excess of their licensed capacity in respect of industrial explosives (among other industries) "subject to the condition that excess production is exported or sold in accordance with the directions of the Government". The implication of this is that, if shortage really arises and important consumers, specially in the governmental sector, find that their operations are handicapped as a result, IEL would be entirely in a position to increase its output by 25% with the only condition that the extra production is sold according to directions of the Government. This condition would be no hardship to IEL as a large part of the output is anyway sold to organisations in the public sector. Moreover, the critical shortage, if any, will be in the area of permitted and/or small diameter explosives. In this area, the new producers may take some time to introduce their products with all the safety and other formalities to be completed. It should not be difficult for IEL to change the composition of its output, with more emphasis on permitted and small diameter explosives and less on large diameter and non-permitted explosives. On a specific enquiry from the Commission at the Public Hearing on this matter, it was stated that the only constraints in this respect would be regarding cartridging facilities for certain types. This should not prove too much of a difficulty. Thus, if for any unforeseen reason, the progress of various new entrants to the industry is slower than may normally be assumed, the Government would be in a position to have its requirements met in view of the liberalisation in licensing which has already been announced and which is open to IEL to utilise. No additional permission or sanction is likely to be necessary for this.

5·07 It may then be asked : if IEL can increase its output in this way in any case, why not approve the proposed project and permit it to do so in an official manner, so to say, rather than by making use of general instructions and possible loopholes? The answer is that what needs to be definitely prevented at this stage is setting up of an entirely new plant which IEL proposes to do under the present proposal. If its dominant position in the industry is to be curbed, and the new intending entrepreneurs—both from the public and the private sectors—are to be genuinely helped in entering this line of industry and establishing themselves in the market, and thus some degree of healthy competition is to be ensured in this sector of the economy, it is necessary to restrain the growth of IEL for some years to come. As we have seen, it has already built up a potentiality of growth at its present site which in any case makes it a formidable competitor for years to come. If at this stage it is permitted to set up an entirely new plant at a new site, this should create obstacles and difficulties for the intending competitors, which may make their position difficult if not impossible. Hence it would not be desirable to grant permission to IEL to set up new capacity as proposed by them.

Recommendation

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5·08 We, therefore, recommend that the application of Indian Explosives Ltd., for permission to effect substantial expansion of their undertaking by the additional manufacture of 15,000 tonnes of commercial blasting explosives, partly by expanding the capacity of their plant at Gomia and partly by setting up a new plant in a backward district in the State of Madhya Pradesh should be rejected.

(Sd.)
(JUSTICE J. L. NAIN)
CHAIRMAN

(Sd.)
(H.K. PARANJAPE)
MEMBER

(Sd.)
(H.M. JHALA)
MEMBER

New Delhi,
Dated : *July* 30, 1976.

APPENDIX I

List of Participants in the Public Hearing held on 29th March, 1976 on the proposal of Indian Explosives Limited

I. Applicant Company

Dr. S.S. Baijal	Managing Director
Shri S. Singh	Executive Director
Dr. I.K. Arora	
Shri G.M. Chopra	
Shri B. Sen	
Shri N.C. Roy	
Shri P.K. Mukerjee	
Shri T.N. Sen	

II. Objectors

1. *IDL Chemicals Ltd.*

Shri M. Varadarajan	Managing Director
Shri V.C. Katoch	Executive Director
Shri S.C. Chadda	Controller
Shri V.G.K. Thathachary	Secretary & Chief Economist

2. *Indo-Burma Petroleum Co. Ltd.*

Shri H. Bhargava	General Manager (Chemical Division)
Shri A.P. Bhalla	Finance Director

3. *Fertilizer Corporation of India*

Dr. S.K. Mukherjee	Director (Production)
Shri P. Sheshadri	General Manager, Co-ordination.

III. Government Officials

1. *Ministry of Industrial Development*	
Shri H.H. Tayabji	Deputy Secretary
2. *Directorate General of Technical Development*	
Shri J.S. Matharu	Development Officer
3. *Planning Commission*	
Shri V.V.S.R. Hanumantha Rao	Officer on Special Duty
4. *Central Mining Research Station*	
Dr. V. Krishnamurthy	Scientist
5. *Bureau of Mines, Nagpur*	
Shri S.K. Chowdhuri	Regional Controlller
6. *Directorate General of Ordnance Factories :*	
Shri C.N. Chandrasekharan	AD(G)
7. *Department of Coal, Ministry of Energy*	
Shri C.D. Tripathi	Deputy Secretary
8. *Government of Madhya Pradesh*	
Shri V K. Majotra	Deputy Secretary

APPENDIX II

Comparative Merits and Demerits of NG based and Slurry Explosives

Factors	Slurry blasting agents	Nitroglycerine based explosives
1. Capital outlay	The capital outlay required for a slurry plant is low as no chemical process is involved.	Both chemical process and mechanical mixing and packaging is involved in the manufacture. The capital outlay required for a plant for manufacturing NG Based explosives is therefore much higher.
2. Manufacturing problems (a) Risk of explosion.	Ingredients and the final product are both non-explosive and therefore the risk of explosion is low.	Preparation of the most important ingredient, nitroglycerine, treatment of spent acid and manufacture of explosives containing nitroglycerine are all attended with high risk of explosion unless plant/equipment and their operators are of the highest standard.
(b) Quality control	Slurries are very sensitive to variations in the concentration of some of the key chemicals which are present in quantities less than one hundredth of one percent. Weighing of such small quantities and mixing them adequately in production batches of 500 Kg. creates serious problems of quality control.	Nitroglycerine based explosives do not have any such small concentrations as to create quality control problems. Composition of these explosives allow flexibitliiy in the proportioning of their ingredients.
3. Packing, handling & transportation	Slurries have low sensitivity to impact and friction and are cap-insensitive. Even cap-sensitive slurry explosives are less sensitive to impact and friction than nitroglycerine base explosives. Slurries therefore do not have to meet the stringent requirement of packing, handling & transport.	Nitroglycerine based explosives are sensitive to impact and friction and therefore have to meet the stringent requirements of packing and transport.
4. Shelf life/storage	The shelf life of slurries is less than six months which is too low to meet the requirement of consumers in this country. This is due to the breaking up of the gel due to slight or unaccounted variation in quality control. These explosives have to be used up immediately where small diameter cartridges have to be used.	Nitroglycerine based explosives have more than an year's shelf life, even under extreme temperature conditions and several years when stored in cool dry areas.
5. Water resistance	Slurries do not have good water-resistance for use under wet conditions. However slurries suitable for underwater use have yet to be developed.	Nitroglycerine based explosives have much greater water resistance than slurries. They are available for underwater use.
6. Density/Strength	The density and strength of slurries are higher than that of ANFO but not as high as those of nitroglycerine based explosives. However, they are good enough for efficient use of boreholes. The strength of slurries does not allow very wide variations to suit specific requirements.	Nitroglycerine based explosives can be made in a wide variety from high strength high density to low density, low strength to suit specific requirements.
7. Mechanical loading	Slurries can be mechanically loaded into boreholes.	Nitroglycerine based explosives cannot be loaded into boreholes mechanically.

1	2	3
8. Noxious fumes	Slurries do not cause headache. After detonation the fumes are more acceptable and therefore the period of suspension of work between blasting is low.	Nitroglycerine based explosives cause headache but immunity is developed by continued exposure. After detonation fumes are noxious and require efficient ventilation in underground operation. The period of suspension of work between lasting is much longer.
9. Detonation failures	Detonation failures occur often with slurries including slurry explosives specially when the stock is older than six months. Such failures cause disruption of work schedule.	Nitroglycerine based explosives have unmatched reliability in regard to initiation by detonator. Even explosives otherwise unserviceable can be initiated by a detonator.
10. Special varieties of explosives	Special varieties of slurries for use in under-ground coal mining work have been developed recently. Their field performance is yet to be proved.	Permitted explosives having nitroglycerine base were developed and are in use all over the world for decades. Where choice is available, consumers prefer these to permitted slurries.
11. Cost	Where large quantities are used and mechanical loading methods employed, slurries are more economical. Small diameter slurries are as costly as nitroglycerine based explosives, but they do not have the versatility of strength, reliability with regard to cap-sensitiveness and acceptable shelf life. These disadvantages make small diameter slurries costlier than Nitroglycerine based explosives in the final analysis.	Nitroglycerine based explosives cannot be mechanically loaded and therefore are not price-wise competitive with slurries. In small diameter usgae, which accounts for about 70% of the total usage of explosives in this country nitroglycerine based small diameter explosives are more economical in the final analysis as they have dependable strength and cap-sensitiveness and a long shelf-life.
12. Customer acceptance	Though slurries have been introduced in this country for about 8 years, they have not so far received customer acceptance.	Nitroglycerine based explosives are long established products which have been proved in the fields in this country over 50 years.

Source:—Narendra Explosives Ltd.

APPENDIX III

Broad Particulars of Foreign Technical Collaboration Agreements entered into by Indian Explosives Ltd.

Parties to the Agreement	Date of Agreement	Nature of Agreement	Broad Terms of the Agreement	Ref. No. & Date of Govt. Approval
1	2	3	4	5
Imperial Chemical Industries Ltd. U.K. AND Indian Explosives Limited.	By exchange of letters between the parties dated 14-11-1957 and 28-11-1957.	Technical Collaboration for Manufacture of safety Fuse.	(a) *Know-how* Collaborators to provide detailed design, drawings & now-how (including licences under related patents), assistance in selecting & procuring equipments of the necessary specification in India & abroad, training of the technical personnel in their factories, supervision of erection, start-up assistance and also general technical consultancy as needed from time to time during the operation of the factory. (b) *Royalties etc.* (i) No royalty in respect of common fuse. (ii) A royalty @5% on the net sales value of high quality fuses from the date of sale of first 100,000 coils for a period of 15 years (i.e. upto September 1975). (iii) Reimbursement in sterling of design and engineering charges and out-of-pocket expenses incurred by the Collaborators at actuals to a maximum limit of Rs. 5 lacs. (c) *Other terms :* Other terms and conditions will be same as those contained in the agreement dated 1-6-55 for the manufacture of commercial blasting High Explosives.	Reserve Bank of India's letters No. C.A.E.C. Rs. 3691/1945-58 dt. 2-12-56 and C.A.E.C. RS 3901/1945-58 dt. 18-12-58 authorising payment of royalty etc.
Imperial Chemical Industries Limited, U.K. AND Indian Explosives Limited.	1st June 1955 and Supplemental Agreement dated 5th January, 1961.	Technical Collaboration for Manufacture of Blasting explosives.	(a) *Know-how :* Collaborators to provide detailed design, drawings and know-how (including licences under related patents), assistance in selecting and procuring equipments of the necessary specification in India and abroad, training of technical personnel in their factories, supervision of erection, start-up assistance and also general technical consultancy as needed from time to time during the operation of the factory.	(1) Reserve Bank of India's letter No. C.A.E.C. RS. 2815/1887-55 dt. 1-10-1955 authorising Royalty Remittances. (2) Ministry of Commerce & Industry Govt. of India's letter No. 7 (30)59/CG.III dt. 11th Feb. 1960 approving the supplemental Agreement.

			(b) *Agreement period*—*20 years* from 1-6-1955. (c) *Royalties etc.* (i) A royalty in sterling @2½% of the gross turnover till a sum equivalent to 10% of the total capital expenditure incurred in the project is paid. (ii) A royalty in sterling @2½% of the gross turnover during the life of the Agreement i.e. upto 1-6-1975. (iii) Reimbursement in sterling of all out-of pocket expenses at actuals.	
Imperial Chemical Industries Ltd. U.K. AND Indian Explosives Limited.	1st October, 1965	Technical Collaboration for Manufacture of Detonators.	(a) *Know-how :* Collaborators to provide detailed design, drawings and know-how (including licences under related patents) assistance in selecting and procuring equipments of the necessary specification in India and abroad, training of technical personnel in their factories, supervision of erection, start-up assistance and also general technical consultancy as needed from time to time during the operation of the factory. (b) *Agreement period*—10 *years* from 1-10-1965. (c) *Royalties etc.* (i) No Royalty payment (ii) Reimbursement in sterling the engineering design charge and out-of-pocket expenses at actuals upto a maximum of Rs. 1.5 lacs.	(1) Letter No. P.R. C8(1) 61 CH.III dt. 19-5-64 from the Ministry of Industry, Government of India. (2) Reserve Bank of India's letter No. C.A. EC. TPI 4687/238K/(IEL)/65 dt. 18-10-65.
Imperial Chemicals Industries Ltd. U.K. AND Indian Explosives Limited.	3rd May, 1967	Technical Collaboration for manufacture of Fertilizers.	(a) *Know-how :* Collaborators to provide detailed design, drawings & know-how (including licences under related patents) assistance in selecting and procuring equipments of the necessary specification in India & abroad, training of technical personnel in their factories, supervision of erection, start-up assistance and also general technical consultancy as need from time to time during the operation of the factory. (b) *Agreement period*-10 *years*: From the date of Commercial production of Fertilizers.	(1) Reserve Bank of India's letter Nos. CA. EC. CI 2372/513-66 dt. 5/10th May, 1966 and C/A.CE. CI 4096/513-67 dt. 11-12-67. (2) Letter Nos. Ferts. I-12(4)/67 dt. 26-8-67 and 10-10-67 and No. 12(4)/67-Ferts I dt. 15-2-68 from the Ministry of Petroleum & Chemicals Govt. of India.

1	2	3	4	5
			(c) *Royalties : etc.* (i) A technical service fee of £ 500,000 at £ 50,000 per annum. (ii) Design & Engineering charges based on actual expenses incurred by the Collaborators upto a maximum of £ 510,000.	
Imperial Chemical Industries, Ltd. U.K. AND Indian Explosives Limited.	15th June, 1967	Design and procurement	In reimbursement of actual expenses incurred by ICI London for carrying out detailed mechanical design of ammonia plant and arranging for procurement of equipment from World wide sources, IEL will pay to ICI London a sum of £ 591,000.	(1) Letter No. Ferts. I-12 (4)/67 dt. 26-8-67 from the Ministry of Petroleum & Chemicals Government of India. (2) Reserve Bank of India's letter No. CA-BC.CI. 4096/513/67 dt. 11-12-67.
Imperial Chemical Industries Ltd. U.K. AND Indian Explosives Limited.	3rd May, 1967	Licence Agreement	To provide technical know-how for steam reforming of liquid hydrocarbons at a fee of £ 182,000.	—do—
Imperial Chemical Industries, Ltd. U.K. AND Indian Explosives Ltd.	3rd May, 1967	Licence Agreement	To provide technical know-how for production of ammonia from ammonia synthesis gas at a fee of £ 105,000.	—do—
Imperial Chemical Industries Ltd., U.K. AND Indian Explosives Ltd. AND Toyo Koatsu Industries Limited, Japan.	23rd March, 1967	Licence Agreement	To provide technical know-how on Urea Manufacture from Ammonia and Carbon Dioxide at a fee of £ 200,000.	(1) Letter No. Ferts. I-12(4)/67 dated 26-8-67 and 10-10-67 from the Ministry of Petroleum & Chemicals Govt. of India. (2) Reserve Bank of India's letter No. CA. BC.CI. 4096/513/67 dt. 11-12-1967.
"Shell" Research Ltd. U.K. AND Indian Explosives Ltd.	22nd July, 1967.	Licence Agreement	To provide technical know-how on Hydrodesulphurisation at a fee of £ 22,000.	(1) Reserve Bank of India's letter No. C.A. BC. CI. 4096/513-67 dated 11-12-1967. (2) —do—
The Benfield Corpn. U.S.A. AND Indian Explosives Ltd.	12th May, 1967	Licence Agreement	To provide technical know-how Carbon Dioxide removal at a fee of U.S. $75,000.	(1) —do— (2) —do—

Imperial Chemical Industries Ltd. U.K. AND The International Research & Development Co. Ltd. U.K. AND Indian Explosives Ltd.	16th Feb., 1970	Licence Agreement	To provide technical know-how on explosives sealing of tubes at a fee of £ 3,500.	(1) Reserve Bank of India's letter No. CA. EC.CI.1970 513-69 dt. 23-7-69. (2) Letter No. Fert. I-12(4) 69 dated 28-6-69 from the Ministry of Petroleum & Chemicals & Mines and Minerals, Government of India.
Imperial Chemicals Industries, Limited., U.K. AND Indian Explosives Ltd.	30th Dec., 1971	Technical Collaboration agreement.	To provide technical information including design and engineering data for a Nitro cellulose Plant. The consideration is a lump sum capital payment to ICI in sterling in London equivalent to Rs. 4,50,000 payable in three instalments.	(1) Letter No. 20(18)-71 LI (II) dt. 30-4-72 from the Ministry of Industrial Development, Govt. of India. (2) Reserve Bank of India's letter No. CA. EC.CI. 2016/513-72 dated 11-10-1972.

Source:—The applicant company.

APPENDIX IV

PART I—*Particulars of Patents Filed in India and Abroad by Indian Explosives Limited.*

S. No.	Title of the Patents	Name of country where applied for	Patent No./Patent Application No.	Whether Granted or pending	Remarks
1	2	3	4	5	6
1.	Safety fuse of the type incorporating seamless plastic cover as one of the waterproof coatings	India	99138	Granted	..
2.	Improved method of preparation of thickened slurry explosives	India	132545	Granted	..
3.	Methods and apparatus for cartridging slurry blasting explosives	India	134203	Granted	..
4.	Slurry blasting compositions:—Inorganic oxidiser salt containing aqueous slurry type blasting compositions containing a mixture of fuel gas and oxygen as novel sensitiser	India	134206	Granted	..
		Newzealand	169445	Granted	Corresponding to Indian Patent No. 134206
		United Kingdom	1362352	Granted	do.
		Canada	160625	Pending	do.
		Australia	50843/73	Pending	do.
		India	323/CAL/73	Pending	do.
5.	Improved Dry Blasting Agent	Iran	13004	Granted	Corresponding to Indian Patent Application No. 323/CAL/73
		Canada	192042	Pending	do.
		United Kingdom	4126/74	Pending	do.
		U.S.A.	442365	Pending	do.
		Australia	65037/74	Pending	do.
		New Zealand	173222	Pending	do.
		Indonesia	4704	Pending	do.
		South Africa	74/3759	Pending	do.
6.	Apparatus for transportation and bulk delivery of Plant manufactured slurry blasting agents.	India	2211/CAL/73	Pending	do.
7.	Rigid Water proof containers for small diameter slurry explosives	India	2468/CAL/74	do.	do.
		United Kingdom	44399/75	do.	Corresponding to Indian Patent Application No. 2468/CAL/74
		New Zealand	179140	Pending	do.
		Canada	239511	Pending	do.
		U.S.A.	641456	Pending	do.
		South Africa	75/7994	Pending	do.
		Indonesia	*	Pending	*Application has been filed but the Number of Application is not known.

8.	Cap Sensitive dry blasting agent	India	287/CAL/75	Pending	—
9.	Improved dry blasting agent	India	288/CAL/75	Pending	—
10.	Multiple Fuse Igniter	India	2388/CAL/75	Pending	—

Source:—The applicant Company.

APPENDIX IV

Part II—Details relating to the Patents obtained/applied by IEL

Basic Patents:

1. IP No. 134203 — 31.3.73

Title: Method & apparatus for cartridging slurry.

Blasting Explosives Investors; Dk Biswas, SN Sen.

The method consists of forming a plastic wrapper around a metalic tubing and continuously heat-sealing it. Further, the explosive composition in slurry form is pumped through the metalic tube into plastic tube thus formed and clipped into discrete cartridges. This principle which is known as form-fill-seal is a novel one for explosive packaging.

2. IP No. 134206—6-1-73

Title: Slurry Blasting Composition. Inorganic
Oxidiser-Salt containing Aqueous Slurry type
Blasting Compositions containing a mixture of fuel gas and oxygen as novel sensitisers.

Inventor: SN SEN

The invention originated from fundamental research carried out on the nature of gas bubbles present in slurry explosives. The novelty of the invention lies in achieving cap-sensitivity in small diameter slurries.

This method does not need incorporation of any other explosive or chemical sensitisers.

	IP No.	Date	Title	Inventors
3.	322/Cal/73	15.2.73	Improved Dry Blasting Agents	DN Bhattacharya
4.	287/Cal/75	15.2.75	Cap Sensitive Dry Blasting Agent.	S Seshan
5.	288/Cal/75	15.2.75	Improved Dry Blasting Agent.	DN Bhattacharya.

These are patents on Dry Powder Explosive compositions without using intro-glycerine or other self-explosive sensitisers. The invention arose out of fundamental studies on the catalytic decomposition of ammonium nitrate and energy of activation studies. This type of non-NG based, cap-sensitive, explosive in cartridged form in 25 mm diameter is not manufactured anywhere in the world.

Improvement Adaptive

6. IP No. 99138—22.4.65

Title — Improvements in or relating to Safety Fuse.

Inventors — Y Lal, J. Mullin

This invention relates to improvement on existng safety fuse (prior to 1965) to make it waterproof by giving in a plastic coating sandwitched between textile material.

7. IP No. 132545—16.8.72

Title:— Improved method for Preparation of Thickened Slurry Explosives.

Inventor:— DK. Biswas.

This invention relates to an adaption of in-line slurry mixer the principle of which was known earlier in chemical engineering practice. The novelty lie in adapting this principle in the field of explosive technology and making it versatile so that both gas and liquid can be injected in correct proportions to slurry being pumped into a bore-hole.

8. IP No. 2211/Cal/73 — 1.10.73.

Title: Apparatus for transportation and bulk delivery of Plant manufactured slurry blasting agents.

Inventors: S.K. Biswas, A.R. Chaudhuri.

This relates to design of self-contained explosive truck which can transport and bulk-deliver plant mixed slurry explosives directly in bore-holes. The novelty lies in formulating a suitable slurry composition of desired density which will remain fluid and waterproof and pumping by a special explosive pump fixed to the truck.

9. IP No. 2468/Cal/74— 8.11.74

Title Rigid Waterproof Containers for small dia slurried Explosives.

Inventors: GM Chopra, T, Gangadharan, RN Sinha.

The invention pertains to manufacture of paper shall containers for slurry explosives. Normally slurry explosives contain considerable proportion of water which permeates through paper shells.The novolty lie in the use of plastic coated paper and special shrinkwrapped plastic film for achieving complete water-proofness and end sealing.

10. IP 2338/Cal/75—24.12.75

Title Multiple Fuse Igniter

Inventor : K. A. Rama Rao

This is an adaptive invention pertaining to a gadget which lights simultaneously a number of safety fuses from Single point ignition.

Source: The applicant Company

APPENDIX V

IEL's Export realisations in relation to cost of production of Explosives

	FOB	Less :— Internal Freight/ Handling/ Naval Charges Etc.	Ex-Factory Price for Export	Ex-Factory price (selling price)	Cost of Production
	Rs.	Rs.	Rs.	Rs.	Rs.
1970-71					
Blasting Explosives (per tonne)	3868	640	3228	3773	2991
1971-72					
Blasting Explosives (per tonne)	2890	700	2190	4033	3317
Blue Sump '000' Mts.	53	17	36	160	154
WCPS '000 ,,	100	18	82	204	184
1972-73					
Blasting Explosives (per tonne)	2980	700	2280	4295	3916
Blue Sump '000 Mts	69	17	52	175	164
WCPS '000 ,,	170	18	152	225	198
1973-74					
Blasting Explosives (per tonne)	3997	840	3157	5644	4904
Blue Sump '000 mts	76	20	56	205	181
WCPS '000	222	22	200	260	229
1974-75					
Blasting Explosives (per tonne)	5160	910	4250	7000	6044
Blue Sump '000 Mts	171	22	149	225	221
WCPS '000 ,,	222	24	198	300	276

Source:—The Applicant Company.

APPENDIX VI

Prices of Explosives by IEL

Part I—DGS&D rate contract prices

(Rs. per case of 25 Kg.)

Period	SG 90% 100 mm	SG 90% above 100 mm	SG 80% 100 mm	SG 80% above 100 mm	SG 60% 100 mm	SG 60% 100 mm	OCG - all sizes
W.E.F.							
15-4-59	130·50	..	120·75	..	113·50	..	96·50
1-6-61	120·41	117·97	112·61	110·17	104·81	102·37	87·75
15-11-61	114·56	112·12	107·25	104·81	99·94	97·50	83·36
1-4-62	114·56	112·12	107·25	104·81	99·94	97.50	83·36
24-5-62	117·49	115·05	110·18	107·74	102·86	100·43	86·29
1-4-63	117·49	115·05	110·18	107·74	102·86	100·43	86·29
1-7-63	115·05	112·61	107·73	105·30	100·42	97·98	83·85
1-4-64	112·50	110·00	105·75	103·25	99·00	95·50	81·75
1-1-65	108·10	105·60	101·60	99·10	95·20	92·70	78·50
1-4-66	108·10	105·60	101·60	99·10	95·20	92·70	78·50
1-4-67	108·10	105·60	101·60	99·10	95·20	92·70	78·50
1-4-68	108·10	105·60	101·60	99·10	95·20	92·70	78·50
1-4-71	113·50	111·00	106·50	104·00	100·00	97·50	82·50
1-4-72	124·75	122·00	117·25	114·50	110·00	107·25	90·75
1-5-74	199·50	195·00	187·50	183·25	176·00	171·50	145·25
1-6-75	203·50	199·25	191·25	187·00	179·50	175·00	148·25

Period	FN/1 all sizes	PF-1 all sizes	PF-2 all sizes	PF-3 all sizes	Hectorite	Ajax G100 grm	Ajax G above 100 gm	Viking G 100 gm.	Viking G above 100 gm
W.E.F.									
15-4-59									
1-6-61									
15-11-61									
1-4-62									
24-5-62									
1-4-63									
1-7-63									
1-4-64	57·50						94·75		82·75
1-1-65	55·20						91·00		79·45
1-4-66	55·20						91·00		79·45
1-4-67	55·20						91·00		79·45
1-4-68	55·20						91·00		79·45
1-4-71	58·00						95·50		83·50
1-4-72	61·00	62·50	82·50	71·75	98·50	107·50	105·00	94·50	91·75
1-5-74	97·50	100·00	132·00	114·75	167·50	172·50	168·00	151·25	146·75
1-6-75	99·50	102·00	134·75	117·00	160·75	176·00	171·25	154·25	149·75

APPENDIX VI (*Contd.*)

(Rs. per case of 25 Kg.)

	Unisax G 100 gm.	Unisax G above 100	Soligex-100 gm.	Soligex above 100 gm.	Unipruf 100 gm	Unipruf above 100 grm	Primex
W.E.F.							
15-4-59							
1-6-61							
15-11-61							
1-4-62							
24-5-62							
1-4-63							
1-7-63							
1-4-64							
1-1-65							
1-4-66		86·78					
1-4-67		86·78					
1-4-68		86·78					
1-4-71		91·00					
1-4-72	102·75	100·00	97·25	94·50	92·00	89·25	812·00
1-5-74	164·50	160·00	155·50	151·25	147·25	142·75	1168·00
1-6-75	167·75	163·25	158·50	154·25	150·25	145·50	1191·25

NOTE:—Prices are for Gomia and are exclusive of freight, taxes, Octroi, excise etc.

Source:—The applicant Company.

Part II—List prices (for general customers) for selected periods

(Rs. per case of 25 Kg.)

Product	Prices w.e.f.			
	21-1-1971	21-3-1972	1-4-1974	21-4-1975
Gelignite	147·00	161·75	262·50	281·00
Plaster Gelatine	138·00	151·75	246·25	263·50
Special Gelatine 90% 100mm length	119·00	131·00	213·25	228·50
—do— above 100 mm length	116·50	128·25	208·75	223·50
—do— 80% 100 mm length	111·50	122·75	200·75	215·00
—do— 80% above 100mm length	109·00	120·00	196·00	210·00
—do— 60% 100mm length	104·00	114·50	188·25	201·50
—do— 60% above 100mm length	101·50	111·75	183·50	196·50
Open Cast Gelignite All Sizes	86·50	95·25	155·25	166·50
GN-1	60·50	63·50	104·50	112·00
Powerflo 1	65·50	65·50	107·00	114·50
Powerflo 2	(Not in Prod.)	86·50	141·25	151·00
Primex	850·00	850·00	1210·50	1315·50
Ajax G above 100 gm	100·00	110·00	179·75	192·50
Viking G -do-	87·50	96·25	157·00	168·00
Unisax G -do-	93·50	102·75	171·00	183·00
Soligex -do-	90·50	99·50	161·75	173·00
Unipruf G -do-	85·00	93·50	152·75	163·50
Hectorite	93·50	102·75	168·50	180·50

NOTE:—Prices are Ex-Gomia Magazine and are exclusive of Sales Tax or other local taxes.

Source:—The applicant Company.

APPENDIX VII

Initial, current and potential capacities of different plants installed by IEL.

Part I—*Licensed Capacity, Installation of Plants and Actual Production by IEL since inception.*

1. *Manufacturing licence*

1954—Government of India's letter of January, 25, 1954 enclosing Industries (D&R) Licence for manufacture of 5,000 short tons and intermediates.

2. *Capital Goods Licence*

1955—Government of India's Capital Goods Licence No. 024571/CCI-CG of 25-5-54 for ' the above project.

3. *Installation and Explanation:*

1956 to 1958.

NOTE— (i) All plants were new and imported except Nitric Acid II.
(ii) Capacities given in brackets are for equivalent tpa of explosives.
(iii) For convenience all capacities are given in approximate tonnes.

Intermediates:

(a) Nitric Acid I—initial capacity 10t/d (5000 tpa).

(b) Oleum —initial capacity 10 t/d (25,000 tpa). This was smallest commercial plant available at that time:

(c) Sulphuric Acid concentration—Two coal fired Pots of initial capacity 18 t/d each (total 9,000 tpa). Also desirable to have a spare, as furnances/pots crack often.

(d) Denitration Towers—One tower of initial capacity 10 t/d (8,500 tpa) Another tower as installed spare as low availability an crucial equipment prone to leaks/breakdowns.

(e) Ammonium Nitrate—Kettle Plant initial capacity of 2500 tpa (5,000 tpa).

Blasting Explosives:

(f) Biazzi NG Plant—initial capacity 10 t/d (12,000 tpa). This was the smallest plant available.

(g) One Taller Mixer Plant—initial capacity of 40 t/d gelatines (12,000 tpa).

(h) Two Dupont Catridging Machines for gelatines—initial capacity of 11·25 t/d (total 6,750 tpa). Cartdiges were mostly 1"×4" giving low machine utilisation.

(i) Two Packing Houses—Initial capacity of 3,000 tpa explosives each or a total of 6,000 tpa. Each house had only one packing line and all the boxes were wooden cases with carton packs inside. Cartridges were also of small size and man limit allowed in the house was less.

(j) One small McRoberts Mixer and two Hand Packing Huts were provided to take care of re-work material but not substantially increasing the total capacity.

4. *Production:*

1958—199 te
1959—2489 „
1960—5851 „

5. *Major Extension Licenses:*

(a) Licence dated April 4, 1960 for manufacture of 15000 short tons per annum of explosives and intermediates.

(b) Capital Goods Licence Nos. 999578/60/HQ/CG dated 19-5-60 Second Hand Nitric Acid Plant and 997549/60/HO/CG/I—13-3-1961—Explosives extensions were issued for the extensions.

6. *Installations and Explanations:*

1961—1962— 1963

All plants were new and imported except the nitric acid plant which was second hand plant import.

Intermediates:

(a) Nitric Acid II—Initial capacity of 42 t/d (21,000 tpa). An UK war surplus second hand plant was available as already informed to the Government.

(b) Sulphuric Acid Concentration—Third, oil fired pot of initial capacity of 30 t/d was added (7500 tpa).

(c) Third Denitration Tower without ancillary/coolers etc. of initial/capacity of less than 10 t/d. This was allow repaires of the old Towers and provide a stand by spare.

(d) One Ammonium Nitrate spray drying plant was installed and the kettle plant was scrapped. Initial capacity was 8275 tpa (16,500 tpa).

Explosives:

(e) One NAB NG plant was installed as the capacity of the old plant was not sufficient. A plant of safer design and of the minimum size available was chosen. This had an initial capacity of 15 t/d (17,000 tpa).

(f) Talley Mixer– Another Mixer had to be added and this being also a potentially dangerous operation, in the total there was some security standby margin available. Initial capacity was 32·5 t/d of permitted explosives (9,750 tpa).

(g) Two DuPont Cartridging machines of initial capacity of 12 t/d each giving an additional capacity of 3600 tpa from one and other DuPont Cartridging machine for large diameter cartridges and to act as in installed spare as cartridging is potentially most dangerous operation.

(h) One Biazzi Powder Cartridging machine of 11 t/d (3500 tpa) was added. One more was installed as standby spare as cartridging is potentially dangerous operation.

(i) One Packaging House for Powder/permitted packing of explosives of 9,000 tpa capacity was added. Third packing house was needed to cater for the design of the complete new line and isolation of different products required in packing Houses.

7. *Production :*

1961 – 8160 te
1962 – 13021 te
1963 – 12482 te
1964 – 14236 te

8. *Improvement of Productivity :*

General improvement in productivity, was brought about by introducing method study, rationalisation of products and incentive schemes.

These were–

(a) Sizes of cartridges were increased.

(b) Product-mix was continuously rationalised to prevent non-productive time.

(c) Results of Work study were continuously implemented leading to better handling of materials and better methods. Two packing lines were installed in Packing Houses.

(d) Work Reward Schemes were given wider applications thereby improving intrinsic availability of machines.

(e) Technical improvements were brought about by R&D activities in terms of newer formulations etc.

(f) In many cases effective plant utilisation was incresed from about 250 days p.a. to about 300 days pa. a. by better planned maintenance.

(g) Spares were used.

(h) All sulphuric acid pots were converted to oil firing.

(i) All three D.N. Towers were used.

(j) Ammonium Nitrate plant production was increased by replacing with a bigger fan and ductings and adding an evaporator set. (25,000 tpa)

9. *Production :*

1965 — 18765 te
1966 – 22930 ,,
1967 – 22215 ,,
1968 – 22944 ,,
1969 – 26875 ,,
1970 – 26338 ,,

10. *Application for expansion/Regularisation:*

(a) Our letter of 17-5-1966 applying for 22539 tes capacity.

(b) Our letter of 25-4-1967 informing 25/26000 tes capacity.

(c) Our letter of 9-4-1969 applying for 25000 tes capacity.

(d) Letter of 22-9-1970 applying for 28,000 tpa and for installing essential standbys.

11. *Improvement by plant modifications to remove bottlenecks and using Standby Equipment:*

Nitric Acid– Ist

1968 to 15 t/d – Another compressor (7,000 tpa).

1972 to 20 t/d – More air input. (8,800 tpa).

Nitric Acid– 2nd

1967 to 45 t/d Another compressor (19,800 tpa).

1969 to 50 t/d Higher air input (22,000 tpa).

1972 to 55 t/d More Compressors (23,700 tpa).

Oleum

1967 to 15 t/d– Separate Drier (40,000 tpa).

Sulphuric Acid Concentration.

1971 to 105 tpa– Renovated Pots (32,000 tpa):

Denitration Tower

1971– Installation of ancillaries for third tower and improving utilisation (35,000 tpa).

Ammonium Nitrate

1970– Installing air cooler (30,000 tpa).

Explosives

Improved nitroglycerine plant utilisation (37000 tpa).

Fuller utilisation of spare cartridging machine and improved handling in packing Houses.

12. *Production :*

1971 – 30054 te

1972 – 31327 te

13. *Regularisation of fuller utilisation capacity*

Letter to task Force of 6-6-72 for regularisation at (28,000 tpa).

14. *The Year* 1973 :

(a) Talley House Explosion.

(b) Production– 25,993 tes.

(c) Rebuilding the Talley House.

(d) Regularisation of capacities at 28,000 tes. Letter dated 19-11-1973 received from the Government.

15. *Further Improvements:*

Nitric Acid Ist– 1974 to 23 t/d Improving the converter/mixer (10,000 tpa).

Nitric Acid IInd– 1974 to 57 t/d Improving pre-heater gas cooler (25,000 tpa).

Sulphuric Acid Concentration– 1974 Improved availability for explosives production (36,000 tpa) Ammonium Nitrate 1974 improving conveyors and steam augmentation (35,000 tpa).

16. *Standby:*

(a) Application for standby of 25-8-1973.

(b) Sanction given– Letter of 8-4-1974 allowing installation of standby and operating at 36,000 tpa level.

(c) Standby installed—October 1974.
    (i) Talley Mixing House.
    (ii) DuPont/Biazzi Cartridging House.
    (iii) Packing House.

17. *Production:*

1974 31463 tes

1975 35168 „

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18. ***Regularisation:***

Application for regularisation at 35,000 tes p.a. has been made dated 2-6-1975.

Source: The applicant Company.

Part II: Current and Potential capacites of plants for the manufacture of explosives and semi-products installed by IEL.

CAPACITIES

Intermediates	Current Daily	Current Annual	Potential Annual
(Figures given in brackets are in terms of explosives)			
Nitric Acid I	23 t/d	(10000 tpa)	Reached maximum
Nitric Acid II	57 t/d	(25000 tpa)	,, ,,
		(35000 tpa)	
Supply of Ammonium Nitrate from outside will release nitric acid capacity for nitration of glycerine/glycol)	—	—	(42,500 tpa)
Oleum	15 t/d	(40,000 tpa)	(42,500 tpa)
Sulphuric Acid Conc.	—	(36,000 tpa)	—
Another Pot is proposed to be added for debottlenecking	—	—	(45,000 tpa)
Denitration Towers	—	(35,000 tpa)	(46,000 tpa)
Ammonium Nitrate	(17,000 tpa)	(35,000 tpa)	(37,000 tpa)
For expansion, AN will be procured from outside as no capacity left in the plant	—	—	—
NG Plant	(9,250 tpa)	(46,250 tpa)	(46,250 tpa)*

*Explosives production can be further increased if NG content of explosives is reduced.

Explosives			
Talley Mixing Du Pont Cartridging	(51 t/d)	(45,900 tpa)	(45,900 tpa)
4 machines @	(24 t/d)	(28,800 tpa)	
1 ,, Standby		(7,200 tpa)**	(23,800 tpa)
Biazzi Cartridging			
2 Machines @	(15 t/d)	(9,000 tpa)	
1 ,, Standby		(4,500 tpa)**	(13,500 tpa)
			(42,300 tpa)

**As both machines are in the same building, only one can be operated at a time.

(i) Gelatines are cartridged in Du Pont machines and permitted, BOS and other powders in Biazzi machines. The total capacity of 42,300 tpa is on the basis of present product-mix.

(ii) Our study reveals that the extra demand on us in the near future will be for powder explosives, where cartridging capacity of Biazzi machine is the lowest. Taking into account the changed product-mix, the total capacity of installed cartridging machines will become as low as (36,300 tpa). Therefore, it will become necessary to instal 2 additional Biazzi machines which will make available a total capacity for cartridging of (45,300 tpa) inclusive of some standby spare margin in Du Pont machines.

Packing Houses	—	(42,000 tpa)	(44,000 tpa)

Source: The applicant Company.

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APPENDIX VIII

Details relating to the proposed capital cost of the project

Part I:—Break-up of capital cost by items of expenditure

Item	Rs. lakhs	
1. Land		100
2. Plant and Machinery:		
(a) Explosives:		
Explosives Production		
Plants	219	
Services	105	
Storage of raw materials and rolling stock	46	
	370	
(b) A/N and Sensitiser:		
Nitric Acid and A/N Plants	300	
Services for Nitric Acid and A/N	190	
Storage of Ammonia and Nitric Acid	70	
Ammonia tankers	30	
Sensitiser Plant with services	70	
	660	
(c) Explosives storage magazines	20	
	1015	1015
3 Building and Site Development:		
3. (a) Site development including railway siding	70	
(b) Buildings and Welfare facilities including housing	130	
	200	200
Grand Total		1350

Source: — The applicant Company.

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Part II :—*Break-up of capital cost at Gomia and the new site.*

Explosives Production Plants
(Item 2(a) of Part I)

Item	Rs. lakhs
NG Explosive (Gomia)	
Ingredient Preparation, e.g. drying and grinding of woodmeal	8
Dope preparation, e.g, weighing, mixing and sieving	12
Machines for making paper shells (2 off)	2
Cartridging Houses with machines (2 off)	52
Expenses Magazines (2 off) for temporary storage and stripping of waste products	10
SA Pot concentrator for additional load of NG refuse acid	40
	124
Slurry Explosive (New Site)	
Dope preparation, e.g., weighing and Sieving	8
Mixing and cartridging of explosive (2 off)	54
Houses and facilities for packing of explosives (2 off)	28
Expense Magazine (1 off)	5
Total	95
	219

Item	Rs. lakhs
Storage of Raw materials and folling stock	
(Item 2(a) of Part I)	
NG Explosives (Gomia)	
Storage of mixed acid and sulphuric acid	6
Material movement and transport, e.g., greenbats, tractor-trailer, etc.	10
	16
Slurry Explosives (New site)	
Storage of raw and maintenance materials	8
E.O. Tanker and storage of sensitiser	8
Material Movement and transport, e.g. tractor-trailer, etc.	14
Total	46
Services for Explosives	
(Item 2 (a) of Part I)	
New Site	
Electricity	22
Steam	10
Water	12
Laboratory including testing station	20
Workshop	30
Effluent treatment	05
	99
Gomia	
Electricity	6
Total	105
Nitric acid and Ammonium	
Nitrate Plants (Item 2(b) of part I)	
Nitric acid palnt with storage of nitric acid	210
Ammonium nitrate plant with storage of ammonium nitrate	90
Total	300
Servicing for Nitric Acid and Ammonium Nitrate	
(Item 2(b) of Part I)	
Water supply with colling towers	60
Electric power supply	80
Boiler and coal handling	30
Ammonia off-loanding	10
Effluent treatment	10
Total	190

Source: The applicant Company.

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APPENDIX IX

Details of Estimates of Demand for Explosives by 1978-79 and 1983-84 prepared by IEL.

Part I—Sector-wise Demand of Explosives:

(Tonnes)

	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	19787/9	1983/844
Coal and Lignite	14900	16600	20600	26400	31200	38500	46200	74000
Iron & Manganese	4200	4400	4600	5100	5600	6900	8300	12000
Copper	800	1100	1500	1600	2400	3200	4000	9000
Limestone/Dolomite and other mining	4000	5900	6700	7400	7400	8000	8500	14000
TOTAL MINING	23900	28000	33400	40500	46600	56600	67000	109000
Non-Mining projects	10800	12000	13000	14500	15400	17400	19100	31000
GRAND TOTAL :	34700	40000	46400	55000	62000	74000	86100	140000

Part II—Coal and Mineral Ore Production:

(Million tonnes)

	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1983/84
Coal	76	78	88	98	108	120	135	203
Lignite	3	3	3	3	4	5	6	13
Iron & Manganese	37	37	38	41	45	53	62	80
Copper	1·3	1·4	1·7	2·0	3.0	4·0	5·0	9·0

Part III—Explosive Requirement for Mining of Coal and Lignite/

	Av. Blasting ratio tes/Explo.-mill. tes. Coal	1972/73		1973/74		1974/75		1975/76*		1978/79*		1983/84*	
		Produc. (Mill. tes)	Explo. (tes)	Prodn. (Mill. tes)	Explo. (tes)	Prodn. (Mill. tes)	Explo. (tes)	Prodn. (Mill. tes)	Explo. (tes)	Prodn. (Mill. tes)	Explo. (tes)	Prodn. (tes)	Exp. (tes)
Pick mining	Nil	16	..	16	..	14	..	10	..	0	..	0	..
Depilaring by blasting	Around 225	17	3800	19	4300	29	6500	33	7400	43	9700	64	14500
Machine cutting and blasting	Around 250	25	6300	24	6000	24	6000	24	6000	39	9800	50	12500
B.O.S. (Development)	„ 500	2	1000	3	1500	5	2500	11	5500	26	13000	36	18000

Complete Mechanisation	..	..	..	..	..	..	..	..	..	..	5	..
TOTAL UNDERGROUND	60	11100	62	11800	72	15000	78	18900	108	32500	155	45000
Surface coal	16	3500	16	4400	16	5000	20	6700	27	12000	48	25000
TOTAL COAL	76	14600	78	16200	88	20000	98	25600	135	44500	203	70000
Lignite	3	300	3	400	3	600	3	800	6	1700	13	4000
GRAND TOTAL :	79	14900	81	16600	91	20600	101	26400	141	46200	216	74000

*Estimate.

Part IV—Explosives Requirements for opencast mining of coal

Production—Million tonnes
Explosives used—tonnes
Blasting ratio—tonnes/million tonnes.

	1972-73			1973-74			1974-75			1975-76			1978-79			1983-84		
	Pro-dn	Explo-used	Blas-ting ratio	Pro-dn	Explo-used	Blast-ing ratio	Pro-dn	Explo used	Blas-ting ratio	Pro-dn	Explo used	Blas-ting ratio	Pro-dn.	Explo-used	Blas-ting ratio	Pro-dn	Explo-used	Blas-ting ratio
Bokaro/Kargali/Kathara/Hazaribagh/Karanpura	7·3	1360	186	7·3	1700	233	7·5	1830	244	9·2	2760	300	11·0	4400	400	17·4	7800	450
Singrauli	1·7	250	147	1·9	350	184	2·9	440	152	3·0	600	200	4·0	1600	400	8·4	4200	500
Orissa	0·6	250	417	0·6	300	500	0·7	320	457	0·8	380	470	1·0	600	600	1·4	850	600
Bisrampur/Kurasia	1·0	690	690	1·0	900	900	1·0	960	960	1·1	1100	1000	2·1	2100	1000	5·7	5700	1000
Korba	0·8	340	425	0·9	410	456	0·9	690	767	0·9	810	900	1·0	1000	1000	2·5	2500	1000
Nagpur	0.8	250	313	0·8	280	350	0·8	290	363	0·8	300	370	0·9	360	400	1·6	650	400
Dhanbad/Asansol	3·5	360	103	3·5	360	126	3·5	470	134	4·2	750	175	7·0	1750	250	11·0	3300	300
TOTAL :	15·7	3500	223	16·0	4300	275	16·0	5000	313	20·0	6700	335	27·0	11810	444	48·0	25000	521

APPENDIX IX– (*Contd.*)

Part V—Explosives — Requirement for Mining of Iron and Manganese ores : **(Ore production on despatch basis)**

	Blasting Ratio test/explo/ mill. tes. ore.	1972/73		1973/74		1974/75		1975/76 (Estimates)		1978/79 (Estimates)		1983/84 (Estimates)	
		Prodn (mill. tes)	Explo (tes)	Prodn. (Mill tes)	Explo (tes)	Prodn. (Mill. tes)	Explo (tes)	Prodn. (Mill. tes)	Explo (tes)	Prodn (Mill. tes)	Explo (tes)	Prodn (Mill. tes)	Explo (tes)
Lumpore/fines	150—160	25·5	4,000	26·5	4200	28·5	4500	32	5000	55·5	8300	78	11700
Blue dust	—	8·0	..	7·5	..	7·0	..	7	..	6	..	2	..
Float Ore	50—60	3·5	200	3·0	200	2·5	100	2	100	0·5	..	..	..
TOTAL :		37	4200	37	4400	38	4600	41	5100	62	8300	80	11700
Average blasting ratio-(tonnes/explo mill. tes. Ore)		116	119			121		124		134		146	

Part VI—Explosives Requirements for Copper Ore Mining:

	1972/73	1973/74	1974/75	1975/76	1978/79	1983/84
Copper Metal Production ('000 tonnes)	10·00	11·0	17·5	20·5	45·0	90·0
Copper Ore Production (mill. tonnes)	1·3	1·4	1·7	2·0	5·0	9·0

	Prodn./ of ore (Mill. tes)	Expl. (tes)	Prodn. of ore (Mill. tes)	Expl. (tes)	Prodn. of ore (Mill. tes)	Expl. (tes)	Prodn. of ore (Mill. tes)	Expl. (tes)	Prodn of ore (Mill. tes)	Expl. (tes)	Prodn. of ore (Mill. tes)	Expl. (tes)
ICC Mosabani Complex	0·8	430	0·9	530	1·0	630	1·0	630	2	1250	2·5	1600
Khetri Copper Complex	0·5	350	0·5	610	0·7	870	1·0	1000	3	2500	4·0	4000
Malanjhkhand		..	..	..	..	..	..	..	..*	250	2·5	3400
TOTAL :	1·3	780	1·4	1140	1·7	1500	2·0	1630	5	4000	7·3	9000

*Initial Development.

APPENDIX IX—(*Contd.*)

Part VII—Break-up of Explosives demand in the Non-Mining Sector

	1972/73	1973/74	1974/75	1975/76	1976/77	1977/78	1978/79	1983/84
DGBR/Army	2000	1900	1800	1800	1800	2000	2000	2000
Roads and Railways	1600	2000	2300	2600	2700	2800	3000	6000
Government Hydel Projects	3400	3700	4000	4200	4400	4600	4800	8000
Minor Irrigation and well-sinking	3500	4000	4400	5200	5700	7100	8300	12000
Seismic and Harbour Projects and new application*	300	400	500	700	800	900	1000	3000
TOTAL :	10800	12000	13000	14500	15400	17400	19100	31000

*Agriculture, reclamation of ravines, metal cladding, scrap blasting demolition, etc.

Source: The applicant company.

APPENDIX X

Projections of Demand for Explosives from non-mining setors for 1978-79 as prepared by IEL

Part I—Basis of Projections

Non-Mining Sector: Estimate of Explosives demand 1978-79 *and* 1983-84.

The basis of our estimate of demand in the non-mining sector has been the integretion of the past trend of explosives demand, Government's plan for harnessing hydel resources/irrigation potential and the infra-structural growth, such as road construction, transport, etc., envisaged in the Fifth Plan.

The non-mining sector has been devided into the following categories :

DGBR

Hydel Projects,

Minor Irrigation/well sinking

Roads and Railways

Seismic and Harbour Projects and new applications.

DGBR

The demand of explosives is based on information collected by us from discussions with DGBR Headquarters. The demand in the past had been varying from 1800-2000 tonnes.

We have made a provision of 2000 tonnes in our estimate for 1978-79 and 1983-84.

Hydel Projects

The details of project-wise requirements as given in Part II have been worked out on the basis of detailed discussions with the Ministry of Irrigation and Power, but in our Annexure VII attached to our note on Supply & Demand* we have taken a lower figure for 1976-77 and 1977-78 as the implementation of a number of projects has been delayed due to lack of funds. Project-wise requirements for 1978-79 are about 5000 tonnes.

Minor Irrigation/well sinking

It has been estimated in the Fifth Five Year Plan that about 67 million hectare metres of surface water and 2.5 million hectares metres of ground water potential for irrigation exists in the country. The development of irrigation from these sources, actual upto 73/74 and targeted for 78/79, is as follows:

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	68-69	73-74	78-79
	(million	hectares)	
1. Surface Water	24	27.1	34.8
(a) Major and medium	17	19.6	25.8
(b) Minor	7	7.5	9.0
2. Ground Water	12	16.0	20.5
	36	43.1	55.3

The ground water resources is mostly tapped by wells—either tube-wells or ordinary wells, the latter requiring extensive usage of explosives in areas where the surface is rocky. In Eastern India and U.P, where the water table is high the depth of wells generally does not extend below the top alluvial soil and, therefore, no explosive is used for digging wells; whereas in South and West of India including Rajasthan and M.P., the water table being comparatively very low and the ground being rocky, well sinking is predominantly done by using explosives. The entire demand for explosives for well sinking is, therefore, concentrated in South and West India. Further not only new wells are dug from time to time , but owing to fluctuation in the level of water table, the existing wells have to be also progressively deepened. To give an idea of the scale of operation, for example, in South India there are around 18 lac wells and about 1000 compressors have been deployed by public/private agencies for drilling of short holes apart from considerable number of holes drilled manually.

An in-depth survey of the well sinking activity in the South and West has been carried out, and based on our assessment together with Government plans for harnessing ground water resources, the details of estimate of demand are given in Part III. In addition to this, there is the demand for minor irrigation schemes for tapping surface water.

The Total demand for explosives on the basis works out to 8,300 tonnes in 78-79 increasing upto 12,000 tonnes in 83-84.

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*Part VII , Appendix IX

Roads and Railways

Details of the Roads and Railways route lengths as estimated in the Five-Year Plans have been taken as the basis for determining the demand for explosives for 1978-79. The explosives usage for these end-uses have been estimated and using these factors the demand is expected to grow from the current level of 2600 tonnes to 3000 tonnes in 1978-79.

Seismic and Harbour Projects and New applications

The current consumption is about 500 tonnes. Considering the increased emphasis on oil exploration and development of harbours for increasing exports, we estimate that the demand of explosives in this sector would grow to at least tonnes by 1978-79. It may be noted that the demand could be substantially higher than 1000 tonnes if application of explosives in agriculture and reclamation of land, metal cladding, etc, for which there is vast potential, start picking up.

The toal demand for explosives in the non-mining sector is thus estimated to grow from 13,000 tonnes in 1974-75 to 19,000 tonnes in 1978-79.

Demand for Explosives by 1983-84

In the Sixth Plan period, the thrust of infra-structural growth is expected to be sustained at the Fifth Plan level, and this rate of growth in the demand by the non-mining sector will result in an increase from 19,000 tonnes in 1978-79 to 31,000 tonnes by 1983-84. If, however, the rate of development is stepped up, this tonnage could increase.

Part II—Requirement of Explosive for Irrigation and Power Projects 1976-77 *to* 1978-79

(tonnes)

Sl. No.	Name of the State/Project	1976-77	1977-78	1978-79
	Andhra Pradesh			
1.	Mehadrigedda Reservoir Scheme	..	..	..
2.	Thandave Project	2·00	..	..
3.	Vamsadhere Project	12·40	12·40	12·40
4.	Somasila Project	4·00	4·00	2·00
5.	TBP HLC Circle Anantapur	1·20	1·20	..
6.	Wanengal Circle	0·03	..	..
7.	Vijayawada Circle	2·00	2·00	2·00
8.	Nizamabad Circle	2·00	2·00	2·00
9.	Srisailam	80·00	40·00	..
10.	Lower Sileru	65·25	65·25	65·25
11.	Upper Sileru	20·10	20·10	20·10
12.	Vijayawada Thermal Scheme	15·10	15·10	15·10
13.	Kothugudam Thermal Scheme	20·10	20·10	20·10
14.	TBP HLC Scheme	2·40	1·20	0·10
15.	Pochamped Project	600·00	400·00	400·00
16.	Rest	1000·00	1000·00	1000·00
	TOTAL	1926·58	1583·35	1739·05
	Assam S E Board			
1.	Kyrdem Kulai Hydel Project	27·00	..	..
2.	Lower Umiam Umkhan H. Project	160·00	80·00	40·00
3.	Kopli Hydel Project	28·00	84·00	112·00
4.	Borgolsi Bongaigaon Chanderpur Extn.	2·50	2·50	1·50
	TOTAL	217·50	166·50	153·50
	Himachal Pradesh			
1.	Bhababa Project	115·00	115·00	105·00
2.	Giri Hydro Electricity Project	..	..	..
3.	Baire Suil H E Project	250·00	..	..
	TOTAL	365·00	115·00	105·00

(tonnes)

Sl. No.	Name of State/Project	1976—77	1977—78	1978—79
Punjab				
1.	Beas Project	..	..	..
Kerala				
1.	Kerala State Electricity Board	200·00	255·00	305·00
Karnataka Electricity Board		..	..	..
Karnataka Power Corporation				
1.	Kalinadi Stage I	1603·00	1350·00	1180·00
2.	Varahi	800·00	600·00	200·00
3.	Bedthi	800·00	600·00	200·00
4.	Linganamakki Dam, Power House	..	..	..
5.	Sheravathi Tail Race	300·00	200·00	..
6.	Kalinadi Stage II	250·00	300·00	100·00
	TOTAL	3753·00	3050·00	1680·00
Tamil Nadu				
1.	Parambikulam Aliyar Project	62·50	62·50	50·00
2.	Thandari Anicut	..	..	..
3.	Parandalar & Project	..	..	..
4.	Karuppanadhi	..	..	..
	TOTAL	62·50	62·50	50·00
Maharashtra				
1.	Koradi Phase II	..	..	..
2.	Koradi Phase II	10·00	..	..
3.	Bhusawal Thermal Power Extn.	5·00	2·50	..
4.	Nasik Thermal Power Extn.	2·50	..	..
5.	Pench H E Project	210·00	210·00	210·00
	TOTAL	227·50	212·50	210·00
Government of Maharashtra, I & P Department				
6.	Vaitarna H.E. Project	..	..	..
7.	Upper Godavari	39·00	10·00	..
8.	Hatnur	22·00	..	..
9.	Penzara Project	..	..	..
10.	Anu Project	50·00	..	..
11.	Suki Project	5·00	..	..
12.	Bori Project	5·00	..	..
13.	Burei Project	25·00	..	..
14.	Jamkheda Project	25·00	2·00	..
15.	Rangavali Project	10·00	8·00	..
16.	Lower Tapi	50·00	50·00	75·00
17.	Raigaon	15·00	20·00	..
18.	Haranbari Project	0·50	..	..
	TOTAL	246·50	90·00	75·00
UP				
1.	U.P. State Electricity Board	25·00	16·00	10·00
2.	Rajghat Dam	..	..	75·00
3.	Yamuna Dam	..	..	..
4.	Tehri Dam	574·50	527·00	517·00
5.	Irrigation Works Circle Nainital	30·00	3·60	3·60
	TOTAL	602·50	546·00	605·60

Sl. No.	Name of State/Project	1976—77	1977—78	1978—79
	Orissa			
1.	Anandapur Barrage	8·00	8·00	8·00
2.	Derjang	..	..	..
3.	Godahado	..	..	..
4.	Pitamahal	..	..	..
5.	Uttai	..	..	..
6.	Baghua	..	..	..
7.	Bahuka	..	..	..
8.	Ong	5·00	3·00	2·00
9.	Sundar	3·00	1·50	2·00
10.	Saipala	3·00	..	..
11.	Kala	3·00	2·00	..
12.	Dadraghati	3·00	1·00	..
13.	Ramiala	5·00	3·00	2·00
14.	Khadkai	3·00	2·00	1·00
15.	Ramal	3·00	1·00	1·00
16.	Sunel	3·00	1·50	1·50
17.	Ramanadi	2·00	..	..
18.	Daha	2·00	1·00	1·00
19.	Aunli	1·00	1·00	1·00
20.	Nesa	2·00	..	..
21.	Pilasalki	4·00	1·00	..
22.	Mahanadi Delta	..	..	..
23.	Balimula Dam	3·00	3·00	5·00
24.	Talchar Power Station	7·00	..	..
25.	Rengali	..	..	250·00
	TOTAL	66·00	31·00	273·50
	Bengal/Bihar			
	Damodar Valley Corporation			
1.	Subarnarekha Hydel Project	..	..	..
	Jammu and Kashmir			
1.	Jammu & Kashmir Power Department	..	..	..
2.	Salal Hydel Project	..	..	200·00
	TOTAL	..	..	200·00
	Punjab			
1.	Punjab Estate Electricity Board	8·26	4·13	..
	Manipur			
1.	Loktak Hydro Electric Project	..	..	..

Part III—Well Sinking and Minor Irrigation

Area—Million Hect.
No. of Wells—Lac Nos.
Explosives—Tonnes

1. *Well Sinking*

Explosives Requirements for Well Sinking

Year	Area under Irrigation from ground water	Area under irrigation not requiring explosives (60% of total area)	Area under irrigation requiring explosives for well sinking (40% of total area)	No. of wells @ 2 Hectares/well	Commulative increase in number of wells	New Wells			Deepening		Total explosives required for well sinking (9—11)
						Added in the plan period	Average per year	Explosives required for new wells @15 to 20 kg/well	No. of wells deepened as at the end of the plan (6—8)	Explosives required for deepening@ 2·5 to 3.5 Kg. per well.	
1	2	3	4	5	6	7	8	9	10	11	12
1968-69 . . .	12·0	7·2	4·8	24·0	..	..	..	..	..	..	..
1973-74 . . .	16·0	9·6	6·4	32·0	8·0	8·0	1·6	2400	6·4	1600	4000
1978-79 . . .	20·5	12·3	8·2	41·0	17·0	9·0	1·8	3000	15·2	5000	8000
1983-84 . . .	25·5 (Extrapolated)	15·3	10·2	51·0	27·0	10·0	2·0	3500	25·0	8000	11500

2. *Minor Irrigation:* Anticipated explosives requirements for minor irrigation projects—

73/73	100 tonnes
78/79	300 ,,
83/84	500 ,,

Total explosives requirement for well sinking and minor irrigation project—

73/74	4100 tonnes
78/79	8300 ,,
83/84	12000 ,,

ASSUMPTIONS:

Column 3 : Area under irrigation not requiring explosives. This represents (a) area irrigated by tube wells and (b) wells in Eastern parts of the country & U. P. State where explosive is not required for well sinking. Average of 60% has been calculated on the basis of actual figures available for the year 1970-71.

Column 4 : Area under irrigation requiring explosives. This represents areas irrigated by normal wells (excluding tube-wells) in the State Rajastan M.P., A. P., Karnataka, Tamil Nadu, Gujarat, Maharashtra, etc. Average of 40% has been arrived on the basis of actual figures available for the year 1970-71.

Column 8 & 10: Explosives consumption for new wells and for deepening of wells is based on our survey.

Column 9: It is assumed that all the wells available during 1968-69 are fully deepended and further deepening is necessary only for the well started after 1968-69.

Part—IV *Explosives Requirements*

Roads & Railways

	68-69	73-74	78-79	83-84
(a) Roads				
Total length of Surface Roads, by end of plan period in '000 Kms.	389	450	550	750
Total road length added during plan period in '000 Kms . .		61	100	200
Av Construction/year in '000 Kms.		12.2	20	40
Requirements of explosives 120 @ t/'000 kms (tonnes) . . .		(a) 1464	2400	4800
(b) Railways				
Total route length by end of plan periods (Km) . . .	59600	61000	62500	65000
Total route length added during plan periods (Km) . . .		1400	1500	2500
Av construction/year (Km)		280	300	500
Requirements of explosives @ 200 t/100 kms (tonnes) . . .		(b) 560	600	1000
Total explosives requirements Roads & Railways . . .		2024	3000	5800
(a+b)		or 2000 (73-74)	3000 (78-79)	6000 (83-84)

Note—

(i) Figures for 83-84 are extrapolated.

(ii) Explosives required for the construction of underground Tube Railways in Metropolitan cities *viz.*, Delhi, Bombay and Madras, have not been taken into account, and if these projects are undertaken, about 200 tonnes year may be needed.

(iii) For Road and Railways, blasting ratio has been calculated on the basis of actual figures available for 73-74.

For construction of Roads and Railways, explosives are consumed for the following operations:

(a) Rock cutting for grading.

(b) For quarrying stone, needed for rubble, metal and chips for soling.

(c) For tunnelling wherever necessary.

Source : The applicant Company

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No. 1/31/75-M(I)

GOVERNMENT OF INDIA

MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS
DEPARTMENT OF COMPANY AFFAIRS

BEFORE THE CENTRAL GOVERNMENT

In the matter of an application under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969;

AND

In the matter of a proposal of M/s. Indian Explosives Limited for the establishment of a new undertaking for the manufacture of Industrial Explosives.

Indian Explosives Limited (hereinafter referred to as the 'applicant company') gave a Notice under Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 (hereinafter referred to as the 'Act') for effecting substantial expansion by the manufacture of 15,000 tonnes per annum of Industrial Explosives. The proposal is to be implemented by a new undertaking to be set up in Madhya Pradesh. As the proposal of the applicant company relates to setting up a new unit, its Notice under Section 21 of the Act has been treated as an application under Section 22 of the said Act. The cost of the project has been estimated at Rs. 13·50 crores (Land - 1 crore; Buildings etc. Rs. 2 crores and Plant and Machinery – Rs. 10·50 crores) which is proposed to be financed through internal cash generation from depreciation and retained profits.

2. The applicant company was registered on 23-10-70 under Section (20a)(ii) of the Act. 60% of its equity capital is held by non-resident shareholders including 51% controlled by ICI (U.K.).

3. The applicant company advertised the proposal in accordance with the prescribed procedure and three objections were received against the proposal of the applicant company from IDL Chemicals Limited, Shri R. Srinivasan, Hyderabad and Narendra Explosives Limited.

4. On the basis of the information available, the Central Government came to the conclusion that no order under Section 22(3)(a) of the Act would be made in this case without further enquiry. Accordingly, in exercise of the power conferred by clause (b) of sub-section (6) of Section 22 of the Act, the Central Government referred the proposal of the applicant company to the MRTP Commission (hereinafter referred to as the 'Commission') for further enquiry and report.

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5. In its Report, the Commission has recommended rejection of the proposal of the applicant company keeping in view its dominant position, its past behaviour in setting up higher capacity compared to the installed capacity permitted and subsequently getting it regularised and the need to bring about healthy competition through new intending entrepreneurs both from public and private sectors. A copy of the Commission Report dated 30-7-76 was supplied to the applicant company and to the objectors who had disclosed their interest before the Central Government and the Commission.

6. A hearing in terms of Section 29 of the Act, was given to the applicant company and to the objectors on the 21st February, 1977. Besides, the applicant company, the representatives of the following objectors attended the hearing :

(1) M/s. IDL Chemicals Limited.

(2) M/s. Indo-Burma Petroleum Co. Ltd.

(3) Fertilizers Corporation of India Ltd.

(4) Narendra Explosives Ltd.

The representatives of the applicant company stated that the company was in a position to put the plant within the time schedule stated by them in their application. They stated that they had strong reservations regarding some of observations reflected in the Commission's report. The representatives of the applicant company refuted the allegation made in the Commission's Report that the applicant company had skilfully utilised stand-by capacity under the guide of fuller utilisation and subsequently presented a *fait accompli* to the Government for regularisation of such capacity and explained in detail the gradual phases through which the applicant company had expanded such capacity by obtaining the necessary approvals from time to time. They also refuted the allegation regarding unreasonable prices leading to huge profits thereby resulting in higher repatriation and contended that the profitability of the applicant company had not been high as compared with other companies in India and overseas and that the company's prices of explosives compared favourably with similar products in the countries. abroad. With regard to the Commission's observations on the high project cost, they submitted that their entire estimate was subject to DGTD scrutiny and their proposal was for an integrated scheme; their project was a much bigger one which will cover housing and welfare costs and in case these cost considerations were included in the project cost estimates for other proposals also, there may not be much of a variance in the total cost. Regarding the share of the applicant company in the explosives market, the representatives stated that it would come down progressively as new projects were being sanctioned. As regards export promotion benefits, they stated that they have not earned any such benefits; the actual earnings in foreign exchange was however, not high as a major part of the realisation was eaten away in the high freight cost. They stated that there was no such export performance by the other producers.

7. The representatives of the objector company, IDL Chemicals Limited, stated that to their knowledge incentives are given on exports of explosives and that they have not been able to achieve any succss on the export front due to the under-cutting practices adopted by the applicant company in the overseas markets. They further stated that their progress has been slow primarily because of the unfair competition which they have to face with giants like the applicant company. With regard to demand projections of slurry explosives, they explained that it was a new concept in the field of explosives and they have to face customer resistance. They agreed with the Commission's observation that the applicant company produced much more than their licensed capacity and presented a *fait accompii* for regularisation. They illustrated that with regard to detonators the applicant company was specifically required not to exceed the production beyond 40 million but it had produced 53 million and later requested the Government for regualrisation of this capacity. The representative of the objector company, Indo-Burma Petroleum Co. Ltmited stated that in view of the scaling down of the demand estimates for coal and other minerals, there was not much scope for creation of additional capacity in this field. He further stated that there was no justification for the establishment of a second plant in Madhya Pradesh as their plant was capable of taking care of the requirements of the State. He stated that they had already made satisfactory progress in setting up the first plant which will be completed by the middle of 1977. The dominance of the applicant company, he stated, was a big obstacle to new entrants. In order to ensure healthy competition, it was necessary that they may also be allowed a reasonable share in the production of explosives. They further pointed out that in the case of their plant, the foreign exchange requirement will be much smaller. As regards technology, he stated that the technology suggested by the applicant company has not been tried in the country earlier. He further mentioned that Indo-Burma Petroleum Co. Ltd. would be prepared to pass on its technology to others who were later allowed by the Government to enter this field. The representatives of the Fertilizer Corporation of India stated that they were pre-dominant in the fertilizer field and were initiated into the field of explosives at the instance of the Department of Coal and the Planning Commission and that the raw material and the technology were available with them. They stated that within the next 6 months or so, they will be able to make a firm investment decision and they desired that a room should be kept for them. The representatives of Narendra Explosives Ltd. stated that the applicant company was enjoying a dominant position and in view of the fact that there was no scope for further creation of capacity in this field, the applicant company should not be allowed any further expansion. On slurry technology, they said that the technology developed indigenously by IDL Chemicals was perfect in every respect and there was no necessity to import a new technology.

8. The Central Government has carefully considesed the report made by the Monopolies & Restrictive Trade Practices Commission, the submissions made by the applicant company and the objectors at the hearing. The present licensed/installed capacity and the capacity covered by the letters of intent which is likely to come up, is 1,16,500 tonnes. An additional capacity of 20,000 tonnes of explosives is covered by the proposal of M/s. Chowgule & Company Pvt. Ltd. which is separately being considered by the Government. The Monopolies and Restrictive Trade Practices Commission had estimated the demand at 80,000 tonnes by 1978-79 and 1,40,000 tonnes by 1983-84 requiring an installed capacity of 1,00,000 and 1,75,000 tonnes respectively on the basis of 80% utilisation of capacity. The demand estimates made by the Commission would require considerable scaling down and the gap between demand and supply projection by the Commission for the latter period of 6th Plan was likely to be substantially reduced. It is not, therefore, necessary for the present to create any further capacity in this field. For these reasons, as also for the reasons mentioned

by the Monopolies and Restrictive Trade Commission in its Report, the Central Government is of the view that it is not expedient in public interest to accord approval to the proposal of the applicant company and that it should be rejected.

ORDER

The Central Government, in exercise of its powers in clause (c) of sub-section (3) of Section 22 of the Monopolies & Restrictive Trade Practices Act, 1969, herby rejects the proposal of Indian Explosives Limited for the establishment of a new undertaking for the manufacture of Industrial Explosives as contained in its application dated the 31st August, 1974 under Section 22 of the Act.

(Sd.)
M.K. KUKREJA,
Joint Secretary to the Govt. of India

NEW DELHI,
the 28th February, 1977.

REPORT UNDER SECTION 22(3) (b) OF THE MONOPOLIES AND RESTRICTIVE TRADE PRACTICES ACT, 1969, IN THE CASE OF KAMANI TUBES PRIVATE LIMITED, BOMBAY.

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No. 1(27)-Enq/72

Report under Section 22(3)(b) *of the Monopolies and Restrictive Trade Practices Act,* 1969—*M/s. Kamani Tubes Private Limited, Bombay*

Introduction

1. The Government of India, Department of Company Affairs, New Delhi referred the application filed by M/s. Kamani Tubes Private Limited relating to its scheme for manufacutre of Mineral Insulated Cables (hereinafter referred to as MIC) for enquiry and report. The company has submitted its application under Section 21 of the Monopolies and Restrictive Trade Practices Act 1969, but the reference to the Commission was made under Section 22 presumably on the ground that the scheme submitted did not amount to substantial expansion and therefore Section 21 would not be applicable. In the Department's forwarding letter, it was mentioned that the provisions of Section 23(4) would also be attracted and the Commission may consider this aspect also in this case and that applicant was being requested to make a formal application under that section also. However, no reference under section 23 has been made to the Commission. Hence this report is being made with reference to the provisions of Section 22 only.

Proposal

2. The company's proposal is to undertake the manufacuture of 3,800 K.Ms. of MIC by purchasing the assets (including land, building, plant and machinery) of M/s. Pyrotenax India Ltd., Poona, which is now under voluntary liquidation. The estimated outlay on this acquisition (including that on capital assets) has been worked out at Rs. 49·35 lakhs as under:—

Sl.No.	Item	*Rs. in lakhs*	
1.	Land	3·24	(to be purchased from M/s. Pyrotenax India Ltd.
2.	Building	9·36	
3.	Plant and Machinery	23·40	
4.	Furniture and Fixture and vehicles	1·86	
5.	Pre-operative expenses	0·35	
6.	Margin for working capital	11·14	
		49·35	

The purchase consideration has been fixed at Rs. 36·00 lakhs. The agreement of sale dated 2nd May 1972 shows that the book value of the assets on the date of the agreement proposed to be acquired by the applicant was Rs. 55,91,740.

Scheme of Finance

3. The estimated outlay worth Rs. 49·35 lakhs enumerated earlier is proposed to be met from the following sources :—

(a) Rs. 13·35 lakhs by depreciation and cash generation.

(b) Rs. 36 lakhs by borrowings from the financial institutions.

The company has given detailed projections and from these it appears that it will be in a position to spare Rs. 13·35 lakhs for the purposes of this project.

The applicant company is not in favour of expanding its equity capital for meeting the balance of Rs. 36 lakhs on the following grounds:—

(i) The cash generation of the company based on past experience is expected to be sufficient to take care of repayment of medium term loans.

(ii) Assets to be taken over are not large enough to justify the issue of fresh capital.

The Applicant Company

4. The 13th Annual Report of the company relates to the accounting year ending on 31st December 1971. Its main business has been manufacture of brass and copper solid/hollow rods, sections, pipes and tubes. Sales for the year ending on 31st December 1971, were of the order of Rs. 4·45 crores. Besides this, it received a sum of Rs. 40·00 lakhs from conversion charges also.

5. Its capital on 31st December 1971, consisted of 4,80,000 equity shares of Rs. 10 each fully paid up The initial capital was Rs. 20,00,000 consisting of 4000 8% (free of income tax) cumulative redeemable preference shares of Rs. 100 each fully paid and 1,60,000 equity shares of Rs. 10 each fully paid. The preference shares have since been redeemed. The equity capital of 1,60,000 shares was raised to 4,80,000 by issue of 3,20,000 shares of Rs. 10 each as bonus shares. The first issue of bonus shares amounting to Rs. 16·00 lakhs was made during the year 1966 and the second of the same amount in the year 1969. The company seems to have resolved at one of its meetings to issue further bonus shares in the ratio of 1:1. The necessary application in this behalf has already been made to the Controller of Capital Issues and it is reportedt to be awaiting clearance.

Dividend

6. The dividends declared by the applicant company during the last 3 years have been as under :

Year ended 31-12-1971	11%
Year ended 31-12-1970	11%
Year ended 31-12-1969	15% *

(*Interim—No final dividend was declared)

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Shareholding Pattern

7. The applicant belongs to the Kamani Group and as on 12th September 1972, there were 34 persons holding more than 1% shares. The break-up of the shareholders is given below:—

Name	No. of equity shares held	Percentage to the total capital
1. *Foreigners*		
(a) Yorkshire Imperial Metal Ltd., Leeds. England	20,010	4·2
(b) Industrial Investments Ltd., Spielhof, Glarus	14,985	3·1
	34,995	7·3
2. *Kamani Group*		
(a) Kamani Directors & Relatives of Directors etc.	3,91,499	81·6
	4,26,494	88·9
3. *Others**	53,506	11·1
Grand Total	4,80,000	100·0

* having a share of less than 1% of the equity. These also include some members of Kamani family

Interconnected Undertakings

8. The applicant company has admitted interconenection with 23 companies/firms of the Kamani Group. The total value of the assets of the 23 Undertakings (including the applicant) but excluding M/s Kamani Services Private Ltd., Bombay, on the date of application was Rs. 4686 lakhs. Details furnished show that 7 of the 23 interconnected undertaknings are engaged in the manufacturing processes like manufacture of reclaimed rubber, zinc oxide, deyes , copper rods and conductors, strips, industrial and watch jewels and electricity meters. The other 16 are working as merchants, traders, property owners, investors, exporters and importers.

Main line of the applicant Company's business

9. As stated earlier, the company is engaged in manufacture of seamless solid drawn copper and copper base alloy tubes and extruded solid copper and brass rods and sections. Production of these items during the past few years has been as below:

Year	Actual annual production in MT		
	Brass/copper Hollows pipes and tubes	Brass/Copper Solids Rods and Sections	Total
1965	874	1,806	2,680
1966	705	1,576	2,281
1967	431	2,005	2,436
1968	535	1,939	2,474
1969	966	2,803	3,769
1970	1,090	2,735	3,825
1971	1,180	2,695	3,927

Installed capacity in the year 1971 in respect of (i) pipes and tubes, and (ii) solid rods and sections was 3000 and 3250 M. Tons respectively. From the above figures it would be noticed that the capacity utilisation has been very low in the case of hollow pipes and tubes. It was only 39% in the said year. In solid rods and sections also the company had an unutilised capacity of nearly 555 tons.

Management

10. The company has furnished a detailed organisational chart. At the apex there is a Board of Directors. The Chairman of the Board presides over the meetings of the Board of Directors, which are held from time to time. The Board of Directors exercised the authority delegated to them by the Memorandum and Articles of Association and the Companies Act. Normally all policy matters are decided by the Board and are implemented through the chief executive. Under the chief executive there are following senior officers :

(i) Finance Manager
(ii) Quality Control Manager
(iii) Technical Services Manager
(iv) Works Manager
(v) Marketing Manager
(vi) Personnel Manager
(vii) Commercial Manager

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Information about the company whose assets are proposed to be acquired, i.e.: Pyrotenax India Ltd. Poona (under liquidation)

11. This company was incorporated on 7th July, 1962, and the Certificate of commencement of business was obtained on 27th July of the same year. It was incorporated with an authorised capital of Rs. 60 lakhs consisting of 60,000 equity shares of Rs. 100 each. The issued capital of the company was Rs. 55 lakhs on 31st December, 1970, comprising of 55,000 equity shares of Rs. 100 fully paid. The subscribed capital was however, Rs. 54,86,750 the balance of Rs. 13,250 representing calls in arrears.

Shareholdings

12. The following are the shareholders of the company who are holding more than 1% of the total share capital :

Name of the shareholders	No. of shares	Percentage of total
(i) Western Insulated Cables Ltd., Bombay-1	975	1·8
(ii) Indian Cable Company Ltd., Calcutta-1	5,500	10·0
(iii) New Great Insurance Co. of India Ltd., Bombay-20 . .	635	1·2
(iv) Pyrotenax Ltd., England	27,500	50·0

Capacity and Working Results

13. The company was granted an industrial licence (No. L/5(6)-29/EEI/61 dated 12th May, 1961 as amended by letter No. 3/28/60-L/EEI dated 21st June, 1962) for a capacity of 2400 miles (3862 Kms) of MIC cable on two shift basis.

Setting up of the Plant and commencement of production, etc.

14. In the year, 1962 the company entered into two agreements with M/s. Pyrotenax Ltd., U.K. Both these agreements were executed on 26th November, 1962. Pursuant to the first agreement, technical know how and information was delivered in the U.K. to one of the directors of the company. The second agreement related to supply of plant, machinery and equipment. The company's factory was set up at Kirkee near Poona and construction was started in the year 1963. After some teething troubles, production on a commercial scale was started in March 1966.

15. From the very beginning the company could not utilise its sanctioned capacity to any significant extent. The unutilised capacity in the years 1967 to 1970 was as under:

Year	*Kilometers*
1967	3624
1968	3685
1969	3810
1970	5680
1971	3785

The position regarding sales has been as below:

Year	*Total sales (figures in Rs. lakhs)*
1966	5.93
1967	17·24
1968	7.93
1969	6.06
1970	13.67

During the year 1971, only 77 K.Ms of cables (worth Rs. 6·65 lakhs) were manufactured.

Sales arrangements

16. The company had appointed M/s. Bombay Company Pvt. Ltd., as its sole selling agents in March 1965. This was a sister concern of M/s Pyrotenax Ltd., M/s Bombay Company Pvt. Ltd., were also the sole selling agents of Pyrotenax Ltd., (U.K.) in India. The sole selling agents worked for the company upto May 1969, thereafter, the company marketed its own products.

Exports

17. Though the company could not reach anywhere near its full capacity, it could sell some of its manufactured products to U.K., Japan and New Zealand against the orders secured by its collaborators. The percentage of production exported since the starting of the factory (yearwise) was as below:—

Year	Total output	Total value of ex-ports	Percentage of export total output
	Rs.	Rs.	
1970	13,64,458	3,63,959	26.6%
1971	6,64,546	2,43,721	36·6%

Other important points concerning the company

18. The Commission made an effort to examine why this company, which was established on the basis of collaboration with a reputed British firm and organised as its subsidiary, came into difficulties within a short period. It appears that the decision to establish production in India was taken by the British company in view of the fact that they had already established the possibility of marketing mineral insulated cables in India, and it was felt that, with further industrialisation, the demand for the product would substantially increase. As the knowhow was going to be provided by the British firm, a world leader in the manufacture of this product, it was felt that the product would be established in the Indian market soon and that it would even be possible to develop exports. Marketing of the the product was already organised by an associate company, viz., M/s. Bombay Company (P) Ltd., which had already taken a lead in attempting to establish a market for the product in India. It does not appear that any formal survey of demand was made. But it was obviously expected by the promoters that the entire production would have a ready market within a short time.

19. The company had to rely on imported raw materials to the extent of about 70% of the total value of raw materials required. This was understood when the industrial licence was granted and there appears to have been no difficulty regarding the grant of import licences for raw materials. The company had also expected to develop indigenous sources of raw materials in course of time and an attempt had been made by the company during its brief operating life to obtain some of the materials from M/s. Indian Aluminium Company, Alwaye, Kerala.

20. It has not been possible for the Commission clearly to understand the reasons for the decline in the company's production and its giving the effort within such a short time after operations commenced. One possible factor might be that, when the selling agency of M/s. Bombay Company (P) Ltd. was terminated, the marketing effort received a setback. In any case, the company found that its sales remained in the range of Rs. 7 to 10 lakhs per annum in most years while sales of about Rs. 40 lakhs per annum were necessary to break even. It has also been pointed out that there was some resistance in the market to increased sales on the basis of the prices charged by the company and a reduction in prices was not found to be feasible in view of the heavy overhead expenses and the costs of imported raw materials.

21. The company therefore decided to close down its production and go into liquidation. The Commission enquired whether there were any alternative offers for the assets of the company. It appears that some offers for the purchase of particular items of plant and machinery had been received from abroad. There was however no other offer for taking over all the assets on the lines made by the present applicant company.

22. It may be mentioned in this connection that the company had 46 employees on its register on 30th June, 1970, i.e., before its closure. At present only 10 persons are in service for looking after the plant. The financial position of the company as revealed by its balance sheet as on 31-12-1970 seems to be quite unsatisfactory.

Comments and representations

23. A notification regarding the applicant company's proposal was published on the 10th August, 1972 in various newspapers. In response to this notification only two letters have been received. These are discussed below:—

(i) *Letter from Shri Ashwani Kumar*

This letter is in very general terms and there is nothing in it which can be useful to the present enquiry.

(ii) *Letter from Shri K. N. Kaura, New Delhi*

He is an ex-employee of M/s. Pyrotenax India Ltd. In his letter he has described the characteristics of mineral insulated cables and the applications of the product, and furnished a list of organisations which are using the product in this country. He has also given what according to him are the reasons for the failure of M/s. Pyrotenax. Shri Kaura has concluded his letter by saying that mineral insulated cables have an expanding market in this country and, therefore, deserve support. A copy of Shri Kaura's letter to the Commission is enclosed (Annexure 'A').

Examination of the proposal

24. The foregoing gives in brief the main aspects of the proposal and details about the applicant company and the company whose assets are proposed to be taken over. In examining the proposal the commission has kept in view the following aspects:—

1. Whether there is a real demand for MIC in the country?
2. How does the applicant company's proposal satisfy the criteria laid down in Section 28 of the M.R.T.P. Act, 1969 ?
3. Whether the applicant company should be permitted to undertake this new project and whether it will be able to overcome the difficulties experienced by M/s. Pyrotenax India Ltd.?
4. Whether the approval should be subject to any conditions etc. ?

25. As regards the first point, enquiries made by the Commission have indicated that mineral insulated cables do not fall under the core sector and, therefore, no estimates of requirements and production have been projected for this item by the Planning Commission. M/s. Pyrotenax India Ltd. (now under voluntary liquidation) was the only manufacturer of MIC in the country in the past few years. No reviews have been made by any Government department in this field. Enquiries made from the D.G.T.D. have indicated that mineral insulated cables are required for high temperature installations and are mostly used in ships, steel plants, furnaces and other specialised installations like fertiliser factories and oil refineries. It can also be used in buildings where fire hazards have to be minimised. Shri K. N. Kaura, in his letter (Annexure 'A'), has given information about the various fields where these cables can be used. He has also furnished a list of organisations which have accepted mineral insulated cables for use in their installations. These cables are said to be of vital importance in defence installations also. The country is embarking on a large expansion in the fields of fertilisers, oil refineries and construction of ships for the Navy as well as the merchant, fleet. We are, therefore, satisfied that there is sufficient scope for the increased use of MIC in this country.

26. Another important question in this connection relates to the quantum of demand. The view of the DGTD is that the present demand will be approximately of the value of Rs. 10 to 12 lakhs per annum, which may increase by 10 to 15% every year. As aginst this, the applicant company thinks that the demand for this product would be considerably higher than the break-even point of Rs. 40 lakhs per year as estimated by M/s Pyrotenax. From the note enclosed with the application to the Department of Company Affairs. It has been noticed that the marketing executive of the foreign company, namely, M/s. Pyrotenax (U.K.) had made the following sales forecast for the years 1968 to 1970 for the Indian company:—

Year	*Pessimistic (Rs. in lakhs)*	*Optimistic (Rs. in lakhs)*
1968	20	29
1969	31	40
1970	44	53

27. There is no basis for the demand figures given by the DGTD as also the estimates made by the Company. The applicant company has not made any detailed market survey regarding the future demand. It, however, appears to us that M/s Pyrotenax India Ltd. did not carry out any sustained market compaign for their products and they failed to arouse sufficient customer awareness about this product. The applicant company has claimed that it has extensive plans for marketing its products and for making the product known. Once marketing activities are intensified and various lines where MIC can be used, are identified, the demand for the product is likely to increase and in the course of the next few years the capacity of the plant may well be utilised to a substantial extent.

28. The other important aspect in this connection that needs attention relates to price fixation. The applicant company being the only producer in this line may perhaps be tempted to over-charge or fix prices at high levels to reap maximum profits. This aspect is of special importance because many users of the product are likely to be public authorities. On the other hand, the Company cannot but be cautious in its price policy at a time when it wants to establish an expanding market for a new product. In view of all this we would like to recommend that a cost audit may be undertaken after the new management has worked the factory for a period of five years.

29. The company was asked to indicate how its proposal satisfies the criteria laid down in Section 28 of the M.R.T.P. Act, 1969. The submissions made by the Company in this regard are briefly mentioned below:

(a) A large number of prospective customers will be defence-oriented establishments. Many of these installations are presently using inferior substitutes. The same basic considerations will apply to a large number of civil installations, buildings and structures. Implementation of the scheme will help in meeting their requirements.

(b) M/s Pyrotenax failed because they depended for their marketing efforts on their selling agent. The plan that the company is having envisages the setting up of the company's own distribution system. When this is done, it would help the company to organise trade in this product line for more efficiently than was possible under the management of Pyrotenax.

(c) Regarding employment of the persons who have been thrown out of their jobs by the liquidation of M/s Pyrotenax India Ltd., the revived plant would help to make the best use of man power as contemplated in this clause.

(d) The company has plans to expand the domestic market MIC including plans for sales promotion compaign to educate the custcmers in the use of the product. This in the company's view is directly relevent to the consideration mentioned in this clause.

(e) At present there are no manufacturers in India producing MIC. The approval of the scheme would enable the company to put the only plant India equipped to manufacture this product back on stream and this would in turn act as a countervailing force to the market dominance of the foreign monopolist.

30. The applicant company belongs to one of the large industrial houses. The value of its assets, along with the assets of interconnected undertakings, work out to nearly Rs. 4700 lakhs. We would have been happy if any smaller entrepreneur had come forward to purchase the machinery of Pyrotenax (India) Ltd. and restart the industry. It was with this object that we gave wide publicity to the company's proposal and inserted a statement as below:—

> "...............All parties who are in a position to furnish any information which will be of help to the Commission in its enquiry including those who have been or making attempts to enter this kind of production are hereby invited to write to the Commission in detail giving the information that will be useful in the enquiry."

Not a single alternative proposal has been received by the Commission in response to the above Notification. The D.G.T.D. has stated that in view of the poor demand at present and the low profit margin, it is not feasible to undertake the manufacture of these cables in the poblic sector. The choice therefore is either to deprive the country of this essential product, continuing to depend on imports for the present and future needs and allowing wastage of capacity already in existence, or to permit the product to be manufactured by a concern which has come forward to undertake the project in spite of the uncertain demand in this line. We have also to consider that an important plant whose present value has been estimated at Rs. 21.48 lakhs is likely to remain unutilised of the proposal is rejected.

31. The Commission considered it useful to take into account the past performance of the applicant company with a view to finding out whether it will be technically competent to handle this project. For this, we collected information from the company about its research and development activities. In answer to our queries the Company has stated that:—

(a) The company carries out the development of new products within the framework of its manufacturing division using the same facilities and resources for product development as for regular products.

(b) There is a separate technical development department of the company which works on the improvement of processes and equipment with a view to improving the quality of existing products and productivities of equipment.

(c) The company has also claimed to have developed the following new items in its existing lines:—

(i) Admirality Brass Tubes.
(ii) Aluminium Brass Tubes.
(iii) 90/10 Cupro-Nickel Tubes for petroleum industry and power projects.

(d) In association with Bhaba Atomic Research Centre, the company claims to have recently developed a sophisticated item such as rectangular seamless micro wave guide tubes required for micro wave antenna systems in the electronic industry.

(e) The company has claimed that it is closely associated with National Research Institutions like; (a) Bhaba Atomic Research Centre, Bombay, (b) National Metallurgical Laboratory, Jamshedpur, (c) Research and Development Organisation for Electric Industries. Bhopal.

(f) It has also claimed that it is in the process of having technical/commercial collaboration with R.D.O. for Electric Industries, Bhopal, for development of 90/10, 70/30 cupro nickel tubes on regular basis with a view to stop import of these items.

32. The company has also stated that it will only be importing aluminium tubes while the earlier company, namely Pyrotenax, were importing both aluminium tubes and conductor rods.

33. Considering all the above facts, we think that the company will be able to implement the project successfully. It, therefore, appears to us that the application may be allowed in spite of the fact that the applicant belongs to a large house.

34. As compared to M/s. Pyrotenax, who were importing both aluminium tubes and conductors rods, the applicant Company expects only to import aluminium tubes and use indigenously available conductor rods. It is not unlikely that they may also be able to experiment with the possibility of ensuring local supply of aluminium tubes.

35. An important point to be kept in mind regarding this application is that no import of machinery is involved — on the other hand, imported machinery is lying idle and has to be put to use. The applicant Company has also claimed that no foreign collaboration is required and that there would thus be a saving regarding royalty payments. Key personnel for the production process have already been trained and some of them are unemployed. Putting the idle plan into operation may give employment to about 70 persons. Considering all these facts, it is obvious that steps must be taken to ensure that the Plant is brought into effective operation at an early date. For this purpose, there seems to be no alternative to permitting the applicant company to go ahead with the proposal.

Condition for Approval

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36. At the same time, it cannot be ignored that the applicant company not only belongs to a large business group but also that it is a private and closely held company. It has a small equity base and out of its present share capital of about Rs. 48 lakhs, as much as Rs. 32 lakhs represents the capitalisation of reserves through bonus shares. At the same time, the Company has built up its assets on the basis of large scale borrowings and its debt equity ratio at the end of the last financial year was 5:1. It has already been indicated that the bulk of the share capital is held by members of the Kamani family and their close relatives. One suggestion made in this connection was that, if the company is to be permitted to go into a new field of activity, the permission should be granted only on condition that a structural change in the character of the Company is brought about. This can be done by (1) converting the company from a private company to a public company and (2) by bringing about a change in the structure of the equity holding so that the family control of equity is diluted to a certain extent. The other alternative suggested was to set up a new public limited company for this project—only a certain part of the share capital of the new company being permitted to be taken up by the applicant company.

37. The Commission had put these alternatives to the applicant Company. In its comments, the Company has pointed out that forming a new company for this project would not be economical in view of the small capital requirement. Moreover, public subscription for the capital of such a new company would not be forthcoming because of the considerable uncertainties that would be involved regarding the future of the company. The company has also emphasised that one of the reasons for the failure of M/s. Pyrotenax was that:

> "Sufficient efforts in the area of marketing and technical services were not available to promote, develop and penetrate the product in the Indian market. We therefore deem it necessary into this context to make concerted efforts both in technical service areas and marketing areas to make this project viable. We feel confident that this would be possible in an undertaking of the size of the present company which has in its services personnel

of calibre in technology, and marketing. We feel that these common services would definitely go a long way in helping the necessary initial efforts required to make a breakthrough in the technical and marketing of this product (sic). Moreover, we would like to state that the product would cater to the needs more or less to the same net-work of customers, whose needs we are catering (sic) at the morment in the existing company."

38. The Commission agrees with this reasoning of the Company. We do not think that it would be useful to insist on the creation of a new company for undertaking the proposal project.

39. The Company has, however, proposed that the amount of Rs. 36 lakhs that it would require for financing the project, over and above what it would obtain from internal sources, would be borrowed from financial institutions on a medium term basis. The Company has justified this course for the following reasons :—

(a) The cash generation of the Company, based on past experience, is expected to be sufficient to take care of repayment of such medium term loan as above stated within a period of 3/4 years.

(b) The quantum of assets to be taken over for this undertaking, is not large enough to justify the capital issue of a size, which would facilitate broad basing to a sufficient extent (especially considering the premium that the Company would enjoy).

(c) Considering the above two facts, the Company does not at the moment consider it appropriate to issue capital to meet requirement of Rs. 36 lakhs since such issue would amonut to a long term commitment, which is not considered expedient for the need of financing this project."

At the same time, the Company has stated that—

"We are keeping in mind the question of broad basing the company and issue of capita at an appropriate time in the near future when the Company contemplates undertaking of a project of a size large enough. At such stage, when we take up a project, of large enough a size, we would make the Company, a company, in which the public would be substantially interested."

40. The Commission has given careful consideration to this argument of the company. It must be noted in this context that while the amount of finance required is not very large, it is quite large as compared to the present equity base of the Company, *viz.*, Rs. 48 lakhs, and, as indicated above, even this to a large extent has been built out of the capitalisation of reserves. Moreover, the Company is already proposing to capitalise a further and substantial part of its reserves and if this proposal is approved its equity base would be doubled with bonus shares being issued to the existing shareholders in the ratio of 1:1. After that happens, the prospects of the equity capital of the Company being diluted to any significant extent so as to reduce the share of the Kamani family would worsen unless a new project of a very large magnitude is undertaken. If therefore the nature of the control over the equity of this company is to be changed, the present would be an appropriate occasion to bring it about.

41. The prospects of obtaining public subscription for an equity issue to meet the whole or a substantial part of the financial requirements of the project are likely to be quite good. The Company's record of profitability and dividend distribution has been very satisfactory. It is obtaining a good bargain in this purchase. With its technical and marketing record, the possibility of its making a success of the new venture also good—that is the main reason why the Commission favours the proposal. There should, therefore, be no difficulty in expecting good public response to a fresh equity issue of, say, Rs. 24 lakhs to meet a substantial part of the capital requirements of Rs. 36 lakhs. The remaining Rs. 12 lakhs may be obtained by way of medium term loan. It is, of course, essential that this public issue should be reserved for new shareholders if the main purpose of insisting on the fresh issue of capital *viz.*, that the control of the Kamani family on the Company should be diluted, is to be attained. It will, therefore, be necessary for the Company to pass a Special Resolution under which the existing shareholders are denied the right to subscribe to the new issue. The new issue should then be offered in preference to (1) public financial institutions and (2) to persons who do not hold any shares in the applicant company at present and especially exclude the present directors and their relatives. It is essential that this issue is offered to the public before any proposal for bonus issue is approved by Government; otherwise the purpose of insisting on a fresh issue will not be served.

42. It is possible that the conversion of the company from a private into a public limited company and the fresh issue of shares may take some time. In that case, in the interest of the plan being put into operation with the least possible delay, there should be no objection to the company obtaining short term loans to complete the deal provided that all steps for its conversion to a public limited company and the issue for fresh equity are completed within one year from the time Government's approval to the proposal is given.

Export potentiality

43. M/s. Pyrotenax India Ltd., had made some exports even though they could not undertake production on a big scale. They could sell their product to U.K., Japan and New Zealand against the orders secured by their collaborators.

We enquired from the applicant company whether it would be possible for it to make any export. Its reply in this connection is reproduced below—

> "It may be mentioned here that the parent company of the undertaking now under liquidation namely: Pyrotenax Ltd., United Kingdom have manufacturing facilities in several parts of the world and have been exporting their products to many countries including India. In these circumstances we expect that our production will be consumed locally by way of import substitution and towards meeting additional requirements in the home market. Hence no export programme has been envisaged under this scheme."

44. We appreciate the handicaps pointed out by the Company. Hence we would not like to impose any condition in this regard. However, the position can be reviewed by the Government after a period of three years and it can impose suitable conditions regarding exports at the time of granting permission for import of raw materials etc. if the Government feels satisfied that a stage has been reached when the company can and should undertake exports.

Recommendations

45. The Commission, therefore, recommends that the proposal of the applicant Company to take over the assets of Messrs. Pyrotenax India Ltd. and to undertake the production of mineral insulated cables may be approved subject to the condition that, within one year, the applicant Company will convert itself into a public limited Company and that it will issue fresh equity for Rs. 24 lakhs in order to finance 2/3rds of the cost of the project proposed to be financed from outside sources. The fresh equity should be offered in preference to (1) public financial institutions and (2) to persons who are not existing shareholders and who are neither directors of the Company nor their relatives. This fresh issue should take place *before* any bonus issue is made as has been proposed by the Company.

(Sd.)
D. SUBRAMANIAN
Member

(Sd.)
H. K. PARANJAPE
Member

NEW DELHI,
dated the 17th November, 1972

ANNEXURE 'A'

Monopolies and Restrictive Trade Practices Commission

M/s. Kamani Tube Private Ltd.

Reference under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969

Copy of Letter dated 30th August, 1972 from Shri K.N. Kaura, 11/M/60 Lajpat Nagar, New Delhi-24, addressed to Shri T.N. Pandey, Deputy Secretary, M.R.T.P. Commission, New Delhi,

Sub : Pyrotenax India Ltd., Kirkee.

Dear Sir,

Kindly refer to your advertisement in the Hindustan Times, New Delhi of August, 10, 1972 asking informations about the above company. As I had been closely associated with the above company from 1-6-1967 to 31-7-1971, I am giving hereunder certain information about the product and its marketing as known to me.

A. My connections with the Marketing of the Products of the above Company

(i) I was employed as an Area Sales Manager with The Bombay Co. (P) Ltd., Delhi-6 (Sole buyers of the products of the above Company) from June, 1967 to February 1969.

(ii) I was employed as a Regional Representative with M/s. Hanley Cables (I) Ltd., New Delhi (a sister company of the above) and looked after the marketing of the above company besides that of Henley Cables (I) Limited from March 1969 to September, 1970.

(iii) I was employed as an Area Sales Engineer at New Delhi office of the above company from October 1970 to July 1971.

B. Products of the above Company

The above company had been manufacturing aluminium conductors, mineral insulated aluminium sheated cables with and without PVC serving in 250/440 V grades and 650/1100 Volt grade.

C. Characteristics of Mineral Insulated Cables Manufactured by the above

Mineral Insulated Cables because of their unique design and manufacturing process have the following characteristics:—

(i) *Safety in performance:*

The tough and pliable seamless metal sheath, backed by well compressed mineral insulation (which does not deteriorate with age, does not support combustion, has no plasticiser to migrate and cannot perish) makes mineral insulated cables of the widest applications, particularly for installations demanding high degree of durability and safety.

(ii) *Non-fire causing:*

The mineral insulation used in these cables is non-inflammable and as such cannot be ignited due to electrical faults and hence these cables cannot initiate a fire.

(iii) ***Heat Resisting:***

The mineral-magnesium oxide—used in the manufacture of the above cables has excellent heat resisting properties and is said to be stable at temperature upto 2800°C, although the cables manufactured by the above Company are normally recommended for use in situations having temperature upto 400°C.

(iv) *Current Carrying Capacity:*

Due to the heat resisting characteristics of these cables and better heat dissipation of metal sheath the current carrying capacity of mineral insulated cables is considerably higher for the same size of cables of other types.

(v) *Earth Continuity:*

The seamless metallic sheath in mineral insulated cables have excellent electrical conductivity and with requisite terminations provide very reliable earth continuity for the installation.

(vi) ***Resistance to abuse:***

The tough seamless metallic tube with highly compressed mineral insulation offer great resistance to maltreatment.

(vii) ***Resistance to oil & petrol:***

P.V.C. served or suitably painted mineral insulated cables are unaffected by oil and petrol or their vapours.

D. Applications of Mineral Insulated Cables:

The unique characteristics of mineral insulated cables enable highest standards of safety to be achieved in using them for general wiring and make them ideal for special applications involving arduous and destructive operating conditions. Some of the generally accepted applications for mineral insulated cables are given below:—

(i) *Situations—involving fire risks:*

Because of the flame-proof characteristics, mineral insulated cables find application in wiring of industries handling explosives materials, petroleum, vapours, inflammable gases (such as Hydgroen, Acetylene Oxygen, Carbon Dioxide, etc.) and Dust proof, Dust tight and totally enclosed installations.

(ii) *Engineering & Chemical Industries:*

In boiler house, metal foundries,, heat treatment plant, rolling mills, furnaces and sub-stations where the heat resisting characteristics of mineral insulated cables are fully utilised for permanent and efficient wiring medium for lighting and power services. In paper, textile and jute mills and laundries where the manufacturing process invariably involves wet conditions combined with the changing temperatures and the presence of chemicals in the atmosphere, mineral insulated cables give efficient services because they are free from condensation problems.

(iii) *Breweries, Dairies, Cold Storages and other Food Processing units:*

In these units, besides the normal hazards in manufacturing units, additional factors of cleanliness and freedom from contamination of the product are involved. The corrosion resistant and non-deteriorating qualities of mineral insulated cables meet these conditions admirably for all classes of wiring whether for lighting or power. There is no trouble due to condensation as in the case where the cables have to be run in conduit, when an electrical installation is required in referigerating and cooling rooms, or in departments where the walls have to be washed and hosed down at regular intervals.

(iv) *Multi-storeyed Buildings:*

Mineral insulated cables may be used, with suitable tap-off boxes, for rising mains intended to serve loads on successive floors of multi-storeyed buildings where the risers are to run on the surface or in any position where the additional mechanical strength of the sheath is required.

E. Acceptance of Mineral Insulated cables in the Country:

A list of organisations which have accepted mineral insulated cables in the country is given in Annexure I.

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ANNEXURE I

Acceptance of mineral insulated cables in the country

1. IS:2274-1963 "code of Practice for electrical wiring installations (system voltage exceeding 650 volts)
   (a) Clause 4.9.16 for Main distribution.
   (b) Clause 4.9.3 for rising mains intended to serve loads on successive floors of buildings.
   (c) Clause 5.15.2 regarding recommended methods of wiring for general applications (Appendix B-1 and B-3)

2. IS:3594-1967 "Code of Practice for fire safety of Industrial Buildings: General Storage and Ware-housing including cold storages."
   (a) Clause 10.2.2 recommends wiring with mineral insulated cables.

3. IS:3836-1966 "Code of Practice for Fire safety of Industrial Buildings: Jute Mills
   (a) Clause 11.2.2 recommends wiring with mineral insulated cables.
   (b) Clause 11.3 recommends wiring with mineral insulated cables.

4. IS:5755-1970 Specification for "Mineral insulated aluminium sheathed cables with aluminium conductors". This specification gives the requirements of Mineral insulated aluminium sheated cables.

5. Regulations for the Electrical Equipments of Buildings issued by the Institution of Electrical Engineers, London.
   (a) Clause 212(A) regarding protection of cables against fire or explosion.

6. The Insurance Association of India (Fire Sectional Committee), Bombay accepting mineral insulated cables manufactured by M/s. Pyrotenax India Limited regarding clause 212(A) of the Regulations for the Electrical Equipments of Buildings issued by Institution of Electrical Engineers, London.

7. The Insurance Association of India (Fire Sectional Committee), Bombay. Accepting Mineral insulated cables manufactured by M/s. Pyrotenax India Limited for rising mains.

8. Central Mining Research Station, Dhanbad. Accepted Mineral insulated cables manufactured by M/s. Pyrotenax India Limited and their glands for Groups I, II and III applications.

9. The Chief Inspector of Explosives to the Government of India, Nagpur. Mineral insulated cables manufactured by M/s. Pyrotenax India Limited allowed for wiring of Petroleum installations and Group IV gaseous situations.

10. Engineer-in-Chief's Branch, M.E.S., New Delhi accepted wiring with mineral insulated cables in section 4.01 of the "Regulations for Electrical Lighting, Heating and Power supply in Buildings containing Explosives".

11. Storage and Transport of Explosives Committee, Ministry of Defence:
    Accepted wiring with mineral insulated cables of a type approved by C. M. R. S., Dhanbad for wiring in explosives buildings requiring flameproof, dust tight, dust proof and totally enclosed fittings.

(Sd.)
N. KAURA

No. 1/13/72-M. III

GOVERNMENT OF INDDA

MINISTRY OF LAW, JUSTICE AND COMPANY AFFAIRS
DEPARTMENT OF COMPANY AFFAIRS

SHASTRI BHAWAN, 'A' WING, FIFTH FLOOR
DR. RAJENDRA PRASAD ROAD
NEW DELHI

Before the Central Government

In the matter of the notice under Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969

AND

In the matter of the proposal of M/s. Kamani Tubes (Pvt.) Ltd. for the manufacture of Mineral Insulated Cables by purchasing the assets of Pyrotenax India Ltd.

M/s. Kamani Tubes Private Ltd. (hereinafter referred to as the "applicant company") gave a notice dated the 22nd April, 1972 under section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 (hereinafter referred to as "the Act") indicating its intention to effect substantial expansion by manufactute of 3800 KM of Mineral Insulated Cables (MIC). the scheme was to be implemented by purchasing the assets (including land, building and plant & Machinery) of M/s. Pyrotenax India Limited. a company, now under voluntary liquidation. The factory erected by the latter company was the only unit in India capable of manufacturing Mineral Insulated Cables. The applicant company belongs to Kamani Group being one of the 48 larger Industrial Houses and has admitted inter-connection with 22 other undertakings belonging to the same group. The value of its assests (Rs. 3·70 crores) together with the value of assets of its inter-connected undertakings aggregated to Rs. 46.36 crores. The applicant company is presently engaged in the manufacture of Brass/Copper Solids (Rods & Sections) and Brass Copper Hollows (Pipes and Tubes). The proposed expansion was not found to be substantial in terms of section 21 of the M.R.T.P. Act. However, as the proposal involved manufacture of a new article in a new unit, it amounted to establishment of a new undertaking within the meaning of section 22 of the Act. The Central Government, therefore, decided to treat the applicant company's notice under section 21 of the Act as an application under section 22 of the Act. The cost of the project was estimated at Rs. 49·35 lakhs allocated as under:—

		Rs. in lakhs
(i)	Land	3·24
(ii)	Building	9·36
(iii)	Plant and Machinery	23·40
(iv)	Furniture & Fixtures & Vehicles	1·86
(v)	Pre-operative expenses	0·35
(vi)	Margin for working capital	11·14
	Total	49·35

The cost of the project was to be financed from the following resources:—

		(*Rs. in lakhs*)
(i)	Internal generation (Depreciation & Cash)	13·35
(ii)	Borrowings from financial institutions	36·00
	Total	49·35

2. The Central Government noted that the provisions of section 23(4) of the Act were also attracted as the applicant company proposed to take over the assets of another company, namely, Pyrotenax India Ltd. (under liquidation) and that a further enquiry would be useful to determine whether any alternative party, whether in public or private sector, could take up this production. On the basis of the information available to it, the Government formed the opinion that an order in this case under section 22(3)(a) of the Act could not be passed without further enquiry and report by the M.R.T.P. Commission (hereinafter referred to as "the Commission"). Accordingly in exercise of the powers conferred by clause (b) sub-section (3) of section 22 of the Act, the Central Government

referred to the proposal of the applicant company under section 22 of the Act to the Commission for further enquiry and report. The Commission recommended approval of the proposal subject to the following conditions :—

(a) The Applicant company shall within one year, convert itself into a public limited company.

(b) The Applicant company shall issue fresh equity for Rs. 24 lakhs in order to finance two-thirds of the cost of the project proposed to be financed from outside sources.

(c) The fresh equity shall be offered in preference to (i) the public financial institutions, and (ii) to the persons who are not existing shareholders of the company and who are neither directors of the company nor their relatives.

(d) The fresh issue shall take place before any bonus issue is made as has been proposed by the applicant company.

3. No objections or representations have been lodged with the Government by any party against the proposal in response to the advertisements published by the company in the "Times of India" dated the 20th May, 1972 and "Engineering Times" dated the 11th May, 1972. A copy of the Commission's report was supplied to the applicant company. An opportunity of being heard, in terms of section 29 of the Act, was given to the applicant company twice. In regard to the conditions suggested by the Commission, the representatives of the applicant company stated that the condition regarding the conversion of the company into a Public Limited Company was acceptable to them. As regards other conditions, the representatives ot the applicant company indicated that it was not possible for the applicant company to accept these conditions because of certain difficulties. They explained that looking to the history of the Pyrotenax India Ltd., they did not consider it practicable to raise money in the market. For about 5 to 6 years, the Pyrotenax India Limited has been incurring losses and in spite of their having foreign collaboration and increased turn over they had accumulated losses of Rs. 35 lakhs. The project proposed to be undertaken by the applicant company was absolutely new and involved considerable risks. The market for mineral insulated cables had yet to be developed and this would take 4 to 5 years to go into full production. The applicant company was taking this project as a challenge and it would be difficult to convince public at this stage to invest money in this project. Moreover, the project was of a very small size involving an outlay of Rs. 36 lakhs only and it was not a viable proposition to raise two-thirds of this outlay by issue of fresh equity. The company had built up its own resources by its conservative financial policies and it would not be economically sound to issue additional equity as it would amount to burdening the company. In regard to issue of Bonus shares the representatives stated that the company had already issued Bonus shares in pursuance of the consent order granted by the Controller of Capital Issues on 30-12-1972. The representatives of the applicant company were also asked to indicate whether the company could agree to accept these conditions in principle and implement the same within a period of 2 to 3 years. The representatives of the applicant company expressed their unwillingness to accept this position.

4. After taking into consideration all the facts and circumstancese of the case the Central Government formed the opinion that as the applicant company is a closely held one with small capital base it should take steps to broad-base its capital structure and allow the benefits of the proposal also to flow to the public. As, however, the applicant company is not willing to accept the contditions designed secure that purpose the Central Government is saisfied that it will not be expedient in the public interest to grant approval to the proposal which should, therefore, be rejected.

ORDER

In exercise of its powers under clause (c) of section (3) of section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 the Central Government hereby rejects the proposal of M/s. Kamani Tubes Private Limited for manufacture of Mineral Insulated Cables by taking over by purchase the undertaking of Pyrotenax India Ltd. (in liquidation) as contained in its application dated the 22nd April, 1972 under section 22 of the Act.

(Sd.)
A. K. GHOSH,
Under Secretary to the Government of India.

NEW DELHI,
28th February, 1974.

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Volume I

Sl. No.	Name of the Company	Date of Reference to the M.R.T.P. Commission	Date of Receipt of M.R.T.P. Commission's Report	Date of passing the Final Orders py Central Government
1.	Alta Laboratories Pvt. Ltd.	10-12-76	29-4-77	Approved on 2-5-78
2.	Atul Products Ltd.	2-11-73	27-6-74	Approved on 31-10-75
3.	Automobile Products of India Ltd.	30-7-71	17-1-72	Approved on 18-11-72
4.	Bajaj Auto Ltd.	30-7-71	12-1-72	Approved on 30-11-72
5.	Carborandum Universal Ltd.	12-2-71	12-5-71	Approved on 1-10-71
6.	Century Spg. & Mfg. Co. Ltd.	12-2-71	12-5-71	Approved on 1-6-72
7.	Delhi Cloth and General Mills Co. Ltd.	24-8-71	18/21-4-72	Approved on 8-3-73
8.	Dunlop India Ltd.	26-8-71	18-4-72	Approved on 8-1-73
9.	Gabriel India Ltd.	20-8-73	15-2-74	Approved on 27-11-76
10.	Gwalior Rayon Silk Mfg. (Wvg.) Co. Ltd.	8-10-71	10-7-73	Rejected on 3-5-74
11.	Hindustan Aluminium Corporation Ltd.	17-7-71	17-2-72	Exemption granted on 31-7-73
12.	India Pistons Ltd.	28-4-73	20-3-74	Approved on 21-6-75

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Volume II

Sl.No.	Name of the Company	Date of Reference to the M.R.T.P. Commission.	Date of Receipt of M.R.T.P. Commission's Report	Date of passing the Final Orders by Central Government
1.	Lucas TVS Ltd.	29-7-71	25-5-73	Approved on 28-3-74
2.	Mettur Chemicals & Industries Corporation Ltd.	2-3-71	30-6-71	Approved on 27-9-71
3.	Neesha & Company	1-2-71	18-3-71	Rejected on 14-9-71
4.	Philips India Ltd.,	17-7-74	2-4-75	Rejected on 5-5-76
5.	Systronics	23-6-72	30-11-72	Approved on 20-7-73
6.	Tata Engineering & Locomotive Co. Ltd.	16-6-71	11-12-71	Approved on 30-6-72
7.	Telerad Pvt. Ltd.	8-12-72	7-5-73	Approved on 21-2-74
8.	Vidyut Metallics Ltd.	1-10-71	1/14-3-72	Rejected on 16-7-73
9.	Vulcan Laval Ltd.	15-2-78	20-6-78	Rejected on 17-1-79

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Volume IV

Sl.No.	Name of the Company	Date of Reference to the M.R.T.P. Commission	Date of Receipt of M.R.T.P. Commission's Report	Date of passing the Final Orders by Central Government
1.	Kesoram Industries & Cotton Mills Ltd.	29-1-71	23-6-73	Approved on 21-3-74
2.	Maharaja Shree Umaid Mills Ltd.	6-4-76	31-7-76	Rejected on 28-2-77
3.	Philips India Ltd	8-4-74	1-11-74	Rejected on 5-7-75
4.	Rallis India Ltd.	4-6-74	24-12-74	Approved on 9-2-76
5.	Shri Ambica Mills Ltd.	22-12-75	31-7-76	Approved on 10-10-77
6.	T.V. Sundaram Iyengar & Sons Pvt. Ltd.	26-7-71	16-12-71	Approved on 2-12-72
7.	Wimco Ltd.	6-4-76	31-7-76	Rejected on 28-2-77

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Volume V

Sl.No.	Name of the Company	Date of Reference to the M.R.T.P. Commission	Date of Receipt of M.R.T.P. Commission's Report	Date of passing the Final Orders by central Government
1.	Karam Chand Thapar & Bros. (Coal Sales) Ltd.	5-12-72	16-4-73	Approved on 30-7-73
2.	Larsen & Toubro Ltd.	15-4-71	13-7-71	Approved on 3-9-71
3.	Larsen & Toubro Ltd.	25-5-72	23-8-72	Approved on 11-10-72
4.	Macneill & Barry Ltd	22-3-72	1-8-72	Approved on 9-2-73
5.	Madhya Pradesh Industries Ltd. & Bengal And Assam Investors Ltd.	15-4-71	18-8-71	Rejected on 5-11-71
6.	Sarabhai N. Chemical Pvt. Ltd.	10-11-72	7-2-73	Company withdrew its Application on 30-3-73.

MGIPCBE—S6—10 M of LJ & CA/ND/79—11-12-82—1,000.

agreed to take up this project. Obviously, it would not have been possible for Ballarpur Mills to negotiate with different land owners for acquiring land for their salt project. The acquired land had been handed over to the Company for the sole purpose of making salt and not for using it for any other purposes. Before acquiring land, State Government has taken into consideration all aspects of the problem.

(3) The loss of paddy consequent to acquisition of land was going to be nominal and would not affect the overall availability of food-grains in the area. Besides, under the rehabilitation scheme, which the State Government was considering for the persons who will be displaced, alternate lands would be provided for growing paddy. Mr. Thomas made it clear that it was not obligatory for the State Government to provide alternative lands for lands acquired under Land Acquisition Act, but considering the popular sentiments in this region, the State Government had decided to considered making alternate lands available.

(4) The persons whose lands have been taken over will not only take alternate lands but also get compensation. Normally, it was the practice of the State Government to provide free land under rehabilitation schemes. However, no final decision has been taken in this regard by the State Government so far, but perhaps the lands will be made available to the affected persons free of cost.

(5) Regarding different actions by two different departments of the Karnataka Government as mentioned by Shri Naik, it was explained that the matter relating to construction of bund was taken up much earlier to 1969 when the notification regarding acquisition of land was issued. The bund was, however, completed in the year 1971 and, therefore, growing of agricultural crops was a subsequent phenomenon. Construction of bund and acquisition of land for purposes relating to industrialisation of the backward area of Karwar District could not be said to be two diametrically opposite sections from the side of the State Government, because the two decisions were taken, one after the other, after taking into consideration all the relevant circumstances at different points of time.

(6) On the question whether any other alternate lands can be made available to the Company for the proposed salt works, Mr. Thoms, drew the Commission's attention to the Project Report which was got prepared by Mysore State Industrial Investment and Development Corporation Limited in the year 1969. This Report was prepared by Shri Gurunath, an Expert in salt manufacture. According to this Report, the only suitable land available for salt production was in Kumta Taluk.

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(7) On the matter relating to acquisition of lands in 'B' Block and not in 'A' Block, Shri Thomas mentioned that there is no question of any malafide. The land in 'A' Block was already under cultivation when the question of acquiring land was considered by the State Government. At that time, land in Block 'B' was not being used for paddy cultivation as it used to get submerged under sea water. The notification regarding land acquisition was issued by the Government in December, 1968 and it was much after this date (in the year 1971) that paddy was grown in this land. Only two or three crops were grown in this land before land was acquired and given to Ballarpur Mills. Thus, at the time of acquisition, the land which was left out, was a land where agricultural operations were being carried on and the land which was acquired was one which was unsuitable for agricular purposes.

(8) On the matter of value of paddy *vis-a-vis* value of salt, Mr. Thomas pointed out that it would not be correct to measure the values in arithmetical terms. The acquisition of land for manufacturing salt would lead to economic benefits in many ways and, therefore there can be no comparison between the value of paddy that will be lost becuase of use of land for salt production and the value of salt. However, even on 'arithmetical' basis, the value of salt was definitely going to be more than the value of paddy. According to Mr. Thomas's estimates, the total area of land under cultivation out of 1849 acres acquired by the Government would be approximately 1500 acres. It was a medium quality land and the average yield of paddy per acre was not likely to exceed 10 quintals. The levy price of paddy at present was Rs. 80 per quintal and on that basis the price of 15,000 quintals of paddy would be approximately Rs. 12 lakhs. As against this, value of salt produced would be Rs. 50 to 60 per metric tonne and cost of salt produced at the works would be Rs. 20 to Rs. 30 less. If the f.o.b. price is taken into account on the basis of price charged by Sanikatta Salt Works, f.o.b. price at the rate of Rs. 120 per metric tonne would be 60 lakhs. Apart from this, the multiplier effect of the salt works as a result of start of ancillary industries, down stream industries and catering industries would be immense.